Huddersfield and Colne Valley

An Area Study

Yorkshire and Humberside Economic Planning Council and Board
London: Her Majesty's Stationery Office, 1969
Published for the Department of Economic Affairs

The maps and illustrations in this study have been prepared by the Ministry of Housing and Local Government.

CONTENTS

Page

PREFACE xii

PART I: A STRATEGY - THE ECONOMIC PLANNING COUNCIL'S PROPOSALS 1

PART II: THE STUDY 7

1. THE STUDY AREA *Paragraphs 1–13* 7

- DELIMITATION *1* 7
- GEOGRAPHICAL BACKGROUND *4* 7
- HISTORICAL BACKGROUND *6* 9
- PRESENT LOCAL ECONOMY *10* 10

2. COMMUNICATIONS *Paragraphs 14–30* 12

- ROADS *15* 12
- RAILWAYS *22* 14
- INLAND WATERWAYS *27* 16
- AIRPORTS *28* 16

Pag

3. HUMAN RESOURCES *Paragraphs 31 - 53* 17

POPULATION 31 17
The Present Population 31 17
Past Trends 34 18
Future Population 41 21
LABOUR SUPPLY 43 21
Size of Labour Catchment 44 21
Types of Labour Available 46 23
Future Supply of Labour 53 26

4. INDUSTRY AND EMPLOYMENT *Paragraphs 54 - 98* 27

RECENT TRENDS 55 27
STRUCTURE 62 30
Linkages 63 30
New Firms 66 32
Wool Textiles 67 32
Engineering and metal using industries 73 34
Chemicals 76 35
LABOUR SUPPLY AND DEMAND 78 36
WAGES AND EARNINGS 88 40
INDUSTRIAL RELATIONS 93 42
FUTURE EMPLOYMENT SITUATION 94 42

5. INFRASTRUCTURE *Paragraphs 99 - 143* 45

HOUSING 100 45
Condition of the Housing Stock 100 45
Improvements 108 46
Recent Housing Progress 110 48
Future Housing Requirements, 1967-81 112 49
Supply of Housing Land 118 50
INDUSTRIAL BUILDINGS AND LAND 119 51
TOWN CENTRES 126 53
URBAN FORM 129 54
The Road Network 132 54
The Public Transport System 136 56
PUBLIC UTILITIES 140 58

Page

6. ENVIRONMENT *Paragraphs 144 – 170* 59

THE URBAN ENVIRONMENT *145* 59
THE COUNTRYSIDE AND OUTDOOR RECREATION *147* 59
CLIMATE *151* 60
POLLUTION *152* 60
DERELICTION *156* 62
EDUCATION SERVICES *158* 63
HEALTH SERVICES *162* 65
COMMUNITY LIFE *166* 66

7. SUMMARY *Paragraphs 171 – 200* 68

8. CONCLUSIONS *Paragraphs 201 – 220* 75

INTER RELATIONSHIPS *202* 75
FUTURE PROSPECTS *211* 76

9. SADDLEWORTH *Paragraphs 221 – 237* 79

APPENDICES 85

A. GLOSSARY AND STATISTICAL SOURCES. 87
B. POPULATION STATISTICS 92
C. THE INDUSTRIAL SURVEY 94
D. EMPLOYMENT STATISTICS 97
E. TRAINING FACILITIES 102
F. LABOUR SUPPLY AND DEMAND ESTIMATES 104
G. HOUSING STATISTICS 106
H. HEALTH STATISTICS 108
J. NOTE ON AGRICULTURE 110

TABLES IN THE TEXT

Number		Page
1	Total Employees By Industry, 1967.	11
2	Estimated Population Within Four Hours' Travelling Time of Selected Towns by Mid-1970's.	14
3	Population Age Structure, 1966.	17
4	Home Population Trends, 1951-68.	18
5	Socio-Economic Group Structure of Economically Active Migrants, 1961-66.	21
6	Some Indicators of Types of Labour Available.	24
7	Socio-Economic Groups of the Male Economically Active Population, 1966.	25
8	Percentage Changes in Total Employees, 1953-67.	27
9	Changes in Total Employees by Industry, 1959-67.	29
10	Proportion of Employees in Growing and Declining Industries, 1966.	30
11	Sources of Principal Materials and Supplies.	31
12	Distribution of Sales.	31
13	Deliveries of Woven Wool Fabrics, 1963-68.	32
14	Grades of Labour Employed.	35
15	Trends in Total Unemployment, 1957-67.	36
16	Activity Rates: Percentage of the Population Aged 15 and over in Employment, 1959, 1963, 1966.	38
17	Activity Rates: Economically Active Persons Resident in the Area as a Percentage of the Population Aged 15 and over, 1966.	39
18	Average Earnings, 1966/67.	40

Number		Page
19	Average Weekly Earnings of Adult Male Manual Workers, April 1968.	41
20	Estimated Supply of and Demand for Labour in 1971 and 1975.	44
21	Housing Conditions.	46
22	New Dwellings Completed per 100 Population, 1961-67.	48
23	Housing Completions and Demolitions, 1961-67.	49
24	Distribution of Rateable Values of Shops and Offices Within the Study Area, 1968.	53
25	Travel to Work by Mode of Transport, 1966 (Total Persons Working in the Area).	56
26	Effect of Smoke Control Orders.	62
27	Education Services.	64
28	Health Services.	65
29	Assessment.	74
30	Annual Rail Ticket Issues (Single Equivalents) from Diggle, Saddleworth and Greenfield to Manchester and Huddersfield, 1967.	80
31	Saddleworth U. D.: Origin and Destination of Migrants, 1961-66.	80
32	Saddleworth U. D.: Socio-Economic Group Structure of Economically Active Migrants, 1961-66.	81
33	Saddleworth U. D.: Journey to Work Movements, 1951, 1961, 1966.	81
34	Saddleworth: Total Employees by Industry, 1967.	83

ILLUSTRATIONS

Figure Number — Page

1 The Study Area and its Regional Setting. 6
2 General Reference Map. 8
3 Home Population: Estimated "Balance Including Migration", 1951-68. 19
4 Journey to Work, 1966. 22
5 Distribution of Employment: Changes 1959-67 and Distribution 1967. 28
6 Numbers of Wholly Unemployed for Males, Females and Total in the Study Area, 1957-68. 37
7 Numbers of Unfilled Vacancies for Males, Females and Total in the Study Area, 1957-68. 37
8 Housing Conditions. 47
9 Principal Areas of Workplace and Residence Showing Bus Routes. 57
10 Major Recreational Facilities. 61

ACKNOWLEDGEMENTS

We are grateful to all who have provided information for use in the study. We are particularly indebted to those firms who replied to the industrial survey and to the Huddersfield and Spen Valley Chamber of Commerce who assisted with this. We also thank the following:

Members and officers of the following local authorities - Huddersfield Corporation, West Riding County Council, Colne Valley, Denby Dale, Holmfirth, Kirkburton, Meltham and Saddleworth Urban District Councils and Peak Park Planning Board.

Director General, Meteorological Office; Mrs. Kulvietis, Community Liaiso Officer, Huddersfield; The Secretary, Leeds Regional Hospital Board; The Clerk, Huddersfield Executive Council (National Health Service); The Clerk, Executive Council of the West Riding of Yorkshire (National Health Service).

The Managers of the Huddersfield and Saddleworth Employment Exchanges; the Huddersfield and Upper Agbrigg Youth Employment Officers; H. M. Superintending Inspector of Factories, Leeds; H. M. District Inspector of Factories, Huddersfield; The Wool Industry Bureau of Statistics.

British Railways (Eastern Region); British Railways (London Midland Region)
British Waterways (Northern Region); Huddersfield Corporation Passenger Transport Department and Huddersfield Joint Omnibus Committee;
Baddeley Bros. Ltd.; Bradford City Transport; County Motors (Lepton) Ltd. ;
Halifax Joint Omnibus Committee; Hanson's Buses Ltd.;
Hebble Motor Services Ltd. ; North Western Road Car Co. Ltd. ;
Sheffield Joint Omnibus Committee; West Riding Automobile Co. Ltd.;
Yorkshire Traction Co. Ltd. ; Yorkshire Woollen District Transport Co. Ltd

YORKSHIRE AND HUMBERSIDE ECONOMIC PLANNING COUNCIL

Chairman

Sir Roger Stevens, G. C. M. G., Vice-Chancellor of Leeds University.

Members

W. Auty, M. B. E., J. P., Managing Secretary, Scunthorpe Co-operative Society Ltd.

Councillor S. E. Brearley, J. P., Member, York County Borough Council.

A. K. Dytch, Assistant General Manager, British Railways, Eastern Region, York.

Alderman J. H. Franklin, O. B. E., Alderman, Grimsby County Borough Council.

B. C. Gillinson, J. P., Chairman and Managing Director, Gillinson, Dewhirst and Company Ltd.

E. Hayhurst, J. P., Regional Secretary, Transport and General Workers' Union.

Lt. Col. G. G. Haythornthwaite, Member of Peak Park Planning Board.

A. R. Hogg, Divisional Officer, Iron and Steel Trades Confederation.

Councillor L. Hulme, Member, Brighouse Borough Council.

J. Kagan, Chairman and Managing Director, Kagan Textiles Ltd.

Sir Bernard Kenyon, Former Clerk of West Riding County Council.

Councillor J. C. Kilner, Member, Holmfirth Urban District Council.

Alderman A. King, O. B. E., J. P., Divisional Organiser, Amalgamated Union of Engineering and Foundry Workers, Alderman, Leeds County Borough Council.

D. M. Knight, Director, Sir James Hill and Sons Ltd.

J. A. Lacey, Chief Docks Manager, Hull.

W. E. Lane, Clerk of Lindsey County Council.

J. T. Leigh, Area Vice-President, National Union of Mineworkers.

Ford Longman, Assistant Director, Joseph Rowntree Memorial Trust, Vice-Chairma Yorkshire Council of Social Service.

Councillor F. B. Lydall, M. B. E., J. P., Managing Director, Yorkshire Electric Transformer Co. Ltd., Member, Mirfield Urban District Council.

E. D. Nicholson, Vice-Chairman and Managing Director, Ideal-Standard Ltd.

Members (Contd.)

Professor J. K. Page, Professor of Building Science, Sheffield University.

I. S. Porter, Managing Director, Wilson and Longbottom Ltd.

W. H. Sales, Former Chairman, National Coal Board, Yorkshire Division.

E. T. Sara, General Manager of Marketing Services, British Steel Corporation.

W. David Sharp, Managing Director, Critchley, Sharp and Tetlow Ltd.

Dr. E. M. Sigsworth, Member, Department of Economics, York University.

Alderman Mrs. J. Smith, C. B. E., J. P., Alderman, West Riding County Council.

Alderman J. W. Sterland, O. B. E., J. P., Alderman, Sheffield County Borough Coun

The Hon. D. M. G. J. Willoughby, M. C., J. P., Secretary, Birdsall Estates Ltd.,
Member, East Riding County Council.

Secretary

J. A. Wallace.

n,

PREFACE

In "A Review of Yorkshire and Humberside" (paragraphs 414-5) the Yorkshire and Humberside Economic Planning Council indicated concern about the future economic strength of towns in the higher Pennine valleys and expressed the view that the circumstances of these areas required closer study.

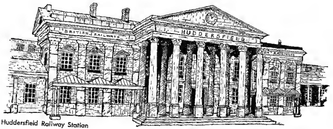
A detailed examination of the Halifax and Calder Valley area has already been completed and published. The present report comprises the results of a similar detailed examination of the Huddersfield and Colne Valley area. The conclusions of these studies, together with others still in progress, will form part of, and be influenced by, the overall regional development strategy which the Council are preparing.

Part I of the report sets out the Council's proposals for a co-ordinated strategy for the area. Although based on Part II, which comprises the Economic Planning Board's study, the proposals are those of the Council.

The study shows that the area offers in many respects conditions favourable to industrial activity. But it also identifies a number of features which could stand in the way of the full use of the area's resources.

The Economic Planning Council believe that co-ordinated action within the framework of their proposals will ensure that the most is made of the area's resources.

The Council hope that all who read this report will find it enlightening, and that their broad proposals will be generally accepted. They would welcome views about the report and the proposals which are made. These views should be sent in writing to the Secretary, Yorkshire and Humberside Economic Planning Council, City House, Leeds, LS1 4PS.



Huddersfield Railway Station

PART I: A STRATEGY - THE ECONOMIC PLANNING COUNCIL'S PROPOSALS

THE JOB TO BE DONE

INTRODUCTION

1. In the Review of Yorkshire and Humberside(1) the Economic Planning Council drew attention to the needs of towns to the west of the conurbation and of those in the higher Pennine valleys, and expressed the view that the planning problems of these areas required close examination.

2. Such an examination of the Halifax/Calder Valley area(2) has already been published. The present report relates to the Huddersfield/Colne Valley area and like the earlier study incorporates the Council's proposals for a strategy for the development of the area based on a detailed study undertaken by a team of Government Department officials of the Yorkshire and Humberside Economic Planning Board.

MAIN FEATURES

3. The study brings out clearly the industrial character of the area and the prominence of the wool textile industry, including the fine worsted section which is concentrated in the area and has a world-wide reputation for the manufacture of the highest quality fabrics. But the industrial strength of the area is by no means confined to wool textiles. It extends to a diversified group of engineering and metal using industries. Some of the most important developments in dyestuffs have taken place in the area and one of the largest dyestuffs plants in the whole of Europe is located here. Many of the firms are substantial exporters making a valuable contribution to the national economy, and in relation to its size the area is probably second to none as far as exports are concerned. The Council are pleased to note that the outstanding export achievements of a number of firms have, in recent years, been recognised by the Queen's Award to Industry.

4. The area offers in many respects conditions favourable to industrial activity and should continue to do so. Not least are the skilled labour resources within a catchment area of something like 100,000 workers and a tradition of good industrial relations. There are good facilities for training and for further education. There is a sense of the value of community life. Land is adequate for housing although the position varies between different parts of the area. There is easy access to splendid scenery and outdoor recreational facilities, and these features must be preserved. Given the topographical features of the area special importance attaches to the careful joint assessment by the

---

(1) A Review of Yorkshire and Humberside - H.M.S.O. 27s. 6d.
(2) Halifax and Calder Valley. An Area Study - H.M.S.O. 17s. 6d.

planning authorities of land availability for housing and other purposes in order that the environmental attractions of the area are, if possible, enhanced as urban developments take place.

5. The quality of trunk road A.62 through the area is relatively poor, but soon the M.62 will be constructed and this will bring quick and easy travel to both sides of the Pennines and to the north/south motorways, and on to other parts of the country. This will, in the Council's view, assist in achieving a high level of economic activity along most of the corridor through which it runs. Special consideration needs to be given to the improvement of subsidiary roads in order to facilitate a greater journey to work pattern which must develop. The shopping and commercial centre of Huddersfield is one of the most important in the West Riding. Its importance derives not only from the shopping and personal services which it provides, but also from its function in providing many of the services required in support of the area's industry.

6. On the positive side, therefore, the study shows the area to be one with potential for economic development. The study, however, also identifies a number of features which could stand in the way of the full use of the area's resources and inhibit this development. If the most is to be made of the resources in the area, and in particular its valuable manpower resources, industrial and other enterprises will need to aim at the highest levels of industrial efficiency and competitiveness. This is likely to entail investment in rehousing and developing industrial undertakings in modern buildings in which the layout of plant and the introduction of the most modern up-to-date productive processes can be effectively planned. The limited supply of good industrial sites in parts of the area to which the study draws attention must not be allowed to hamper such developments (see paragraph 19). There is a need for a determined joint effort to be made by the local planning authorities to find the best possible sites to meet this requirement. Problems of finance for the acquisition of land and the provision of services for industry for this purpose may arise. In dealing with these full account will need to be taken of their relevance to the economic planning requirements of the area.

7. Earnings in the area are relatively low. So, too, is the quality of housing, although standards vary from one part of the area to another. These factors, combined with the disadvantages of climate, pollution and dilapidation, would seem to explain the recent experience of the area in losing population by migration. The overall net loss of manpower may well have been small, as the study indicates, but the worrying aspect is that against a significant loss of the more skilled workers the intake of manpower has been largely of those needing training or skills.

8. These, broadly, are the area's characteristics of strength and weakness which emerge from the detailed study. A strategy for the economic future of the area must be aimed at courses of action which will make the most of the resources from which the area derives its strength and remedy the weaknesses which could hinder progress in achieving this aim.

THE BASIS FOR A STRATEGY

9. Of all of the area's economic assets, first and foremost are its human resources and the skills of its people. These include not only the trained skills of the labour force, but also the expertise and the range of professional, technical, financial and commercial services which support industry. A strategy for the economic future of the area must provide first for the most rapid advance in industrial efficiency, not only in the textile

industry which uses over one quarter of the whole labour resources of the area, but in engineering, in the electrical and metal industries, and indeed throughout the whole range of industry represented in the area.

10. Greater competitive strength lies in increased productivity which brings with it the possibilities of the redeployment of manpower in industrial expansion and also increase of earnings. The report on productivity in part of the textile industry (prepared for the E.D.C. for the Wool Textile Industry and referred to in Part II of this study) undertaken by the industry itself, has brought valuable information to light which has an important bearing on this. The Council warmly welcome the industry's intention to follow up the results. There are, indeed, clear indications that industry within the study area is increasingly aware of the importance of higher productivity and the possibilities flowing from this of offering better job prospects and earnings so that the area's skilled manpower is not lost to other parts of the country.

11. There are other requirements which have to be satisfied if the area's human resources are to make their fullest contribution. Facilities for technical education in Huddersfield are already at a high level. It is of special importance that educational facilities for younger people, who will replenish the area's manpower resources, to prepare them for technical training and the acquisition of skills, should be sustained at a high level.

12. But people not only need educational facilities, good training and good job prospects, they need adequate housing for themselves and their families. They will rightly expect the standard of their environment to rise. If it does not, it may well play a part in personal decisions to move away which will reduce the manpower available in the area. It may well also deter commercial and industrial undertakings from coming in to the area.

13. Housing and the urban environment must be improved. Unfit houses must be replaced as soon as possible; old houses which still have a worthwhile life as comfortable homes must be given the amenities they need. The environment calls for much improvement, and a start should be made with those matters of detail lying within the field of town planning and associated skills which are feasible at present. The commercial centre of Huddersfield has recently been much improved and made more accessible by new building and road construction. The Council welcome this and recommend that these efforts should be maintained, but with additional emphasis on increasing the efficiency and amenity of existing property. This calls for an effort both by the local authority and by private interests. Traffic management, road construction, car parking, and the refurbishing and modernisation of buildings - and other policies - will all have a part to play.

14. These requirements together fit into a basic pattern for the area's future in which industry and commerce are achieving the highest levels of efficiency and productivity and thereby increasing the prospects of offering good job opportunities and good earnings, and in which the quality of housing, the facilities for education and the whole environment comes up to the standard which people will expect if they are to continue to develop their skills and apply them to economic advance in this area.

15. There is one feature about the urban districts in the study area to which special attention is drawn. These districts include a number of towns which were established at much the same time and for much the same reasons as Huddersfield itself. Huddersfield provides the main source of employment for those who live within the area but outside the County Borough, and this will continue to be a characteristic of the area. But the urban districts have an important role to play. Though they each have a separate valley

community life, economically and socially they have much in common. Existing industr in these areas can be expected to continue to prosper and in some places there may well be scope for new developments. The Council perceive, however, some change in emphasis as the urban districts play an increasing residential role. In the Council's view, the best prospects lie in a special effort in this direction. The provision of suitable sites and services to enable this to be brought about should be feasible while still preserving the amenities of the countryside, in which the Green Belt and the proximity of the National Park play a major part and where new residents will find the attractive environment they look for.

SADDLEWORTH

16. The area of Saddleworth has been examined separately from the rest of the study area. The results confirm that by contrast with the rest of the area, whose economic and social future hinges very much on Huddersfield, Saddleworth, with its many attractions as a residential area and where the local authority has been active in promoting development leading to a significant population growth in recent years, seems to be much more linked to the Lancashire towns. Saddleworth is seen as continuing this role.

STRATEGY PROPOSALS

17. The Council's basic strategy is designed to remedy weaknesses which might otherwise lead to decline and, by making the most of the area's industrial strength, to provide for steady economic advance over the years ahead. Their proposals are two-pronged. First, to make the most within industry and commerce in the area of the human resources, and secondly, to raise the standard of environment as a safeguard against the loss of these resources to other places.

18. Neither of these basic proposals can be considered in relation to the study area in isolation. In many ways the characteristics of the study area differ from those of the Halifax/Calder Valley which was the subject of an earlier area study. At the easterly end the two study areas come close together and the M.62 will run along the dividing line between them. The general area of Huddersfield within the present study area and that of the eastern end of the Halifax/Calder Valley area, may have something to contribute to each other.

19. This, in the Council's view, has a special relevance to one of the key requirements of the present study area, namely, good sites for industrial development which will step up industrial efficiency and lead to better job prospects. It may well be that despite a determined effort by the local planning authorities in the study area to find good sites for industry and to make them available, more land may be needed for this purpose than can be found in the study area. In that event, it will be important for the planning authorities in this area, as well as those concerned in the Halifax/Calder Valley area, to consider the matter together.

20. There is one further point which the Council wish to emphasise before summarising their strategy proposals. The study, and the Council's consideration of it, have been undertaken at a time of severe containment of public expenditure and at this moment of time it is not possible to look confidently to any substantial and early relaxation. Nevertheless, the Council must emphasise that their proposals are mainly concerned

with a long term planning strategy for the area and they have not considered it appropriate to modify them on this account. The Council hope that before too long the national economic situation will allow a higher rate of expenditure on those things which the Council consider are needed in the area. In the meantime they emphasise that a great deal can be done, at relatively little cost, as indicated in paragraphs 10 and 13, in the directions which the Council are advocating.

21. The Council's strategy proposals are summarised as follows:-

(1) to achieve the highest pace of increase of industrial efficiency in the area and, to this end, to encourage industrial undertakings to invest in development and rehousing in modern premises which will facilitate an increase in industrial efficiency;

(2) to secure the maximum rate of replacement of old, bad housing, a significant rate of improvement of the environment (and of old housing which still has a useful life) and substantial opportunities for private enterprise housing;

(3) to ensure that adequate educational facilities are provided for the younger people who represent the area's source of future manpower supply;

(4) to improve the environment generally. This, together with (1), (2) and (3) will help to provide a safeguard against the loss of manpower and industrial and commercial enterprises;

(5) to encourage and facilitate the development of the urban districts as residential areas, and lastly

(6) to advance the efficiency and amenity of Huddersfield as the major industrial and commercial centre of the area.

22. In the Council's view, a programme based on the existing industrial and commercial strength of the area, which provides for increased industrial efficiency opening up possibilities of the redeployment of manpower and good job prospects, and combines this with good quality housing and improved environment, and adequate educational facilities for the young, should ensure a steadily advancing prosperity for the area.

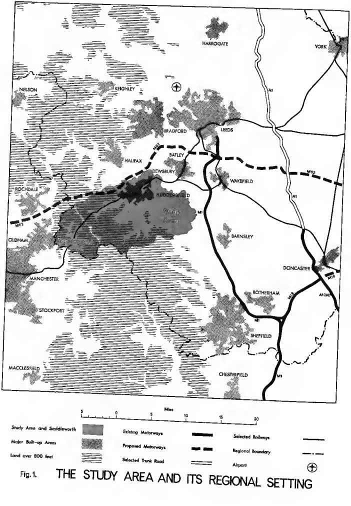


Fig. 1. THE STUDY AREA AND ITS REGIONAL SETTING

PART II: THE STUDY

1. THE STUDY AREA

DELIMITATION

1. The study area is situated at the south-western end of the West Yorkshire conurbation and adjoins the Halifax and Calder Valley area which was the subject of an earlier study. The two areas are approximately separated by the line of the Lancashire-Yorkshire Motorway (M. 62), on which construction has now started. The study area in its regional setting is shown in Figure 1.

2. It comprises the County Borough of Huddersfield and the Urban Districts of Kirkburton, Denby Dale, Meltham, Colne Valley and Holmfirth (see Figure 2) and coincides almost exactly with the Huddersfield Employment Exchange area. The population of the study area in 1968 was 207,000. At the request of the Economic Planning Council, Saddleworth Urban District (19,000 population) is also examined in this report. Where available, data for Saddleworth are included in the statistical tables throughout the report but they are discussed separately in Chapter 9 which shows that although administratively part of the West Riding, Saddleworth's main links as regards transport, employment and services are with Lancashire. The term "study area" therefore excludes Saddleworth, both in the text and in the diagrams.

3. The study area is self-contained in employment terms; in 1966 some 93% of the working population both lived and worked in the area. Moreover, the daily movements to work across its boundaries were approximately in balance. The degree of self-containment is slightly less marked in the eastern parts of the area where there is some movement to work in other urban areas to the east, but some 88% of the economically active residents of Denby Dale and Kirkburton Urban Districts nevertheless worked within the study area. This high degree of self-containment makes the area a meaningful unit for the purposes of the study.

GEOGRAPHICAL BACKGROUND

4. Situated on the eastern slopes of the Pennines, the area can be physically divided into two contrasting sections. To the west is a moorland plateau of Millstone Grit rising to over 1,500 feet. The scenic grandeur of the moors has resulted in the inclusion of parts of the area in the Peak District National Park (see Figure 10). Dissecting this plateau are the narrow steep-sided Colne and Holme river valleys. These valleys contain the greater part of the population and industry in the area, including Huddersfield which is situated at the confluence of the two rivers. The River Colne continues eastwards to join the River Calder at Colne Bridge. With the exception of the trans-Pennine route A. 635 in the southern part of the study area, the area's main communications closely follow this valley pattern. The main trunk route across the Pennines to Manchester (A. 62), the Leeds-Huddersfield-Manchester rail route and the

GENERAL REFERENCE MAP

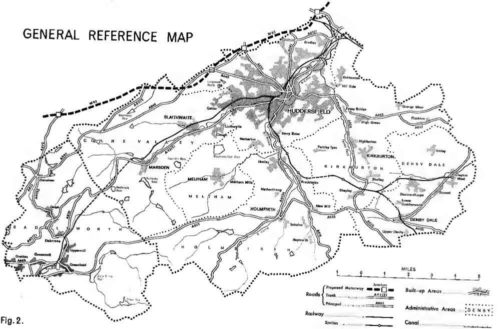


Fig. 2.

old Huddersfield Narrow Canal all follow the Colne Valley; while the Holme Valley, as far south as Brockholes, accommodates one of the main roads from Sheffield (A. 616) and the railway line from Huddersfield to Clayton West and Penistone.

5. The area to the south-east of Huddersfield is composed of less resistant shales with coal seams beneath. Most of the coal is now worked out but there are three small collieries still in operation. Here the relief is more undulating with a general elevation of about 400 to 700 feet. In contrast to the bare Pennine moors it is well-wooded and the scenery more pastoral in character. Settlements, which are generally small, are concentrated in valleys which are tributaries either to the River Colne or to the River Dearne.

HISTORICAL BACKGROUND*

6. Although settlement in the area dates back to pre-Roman times, the growth of Huddersfield took place mainly in the 19th century and was based on the development of the woollen industry. In the 18th century the industry had been a cottage industry carried out in the hills in scattered communities, which owed their existence to the abundant supplies of soft water from the Millstone Grit for processing the wool. The development of water-power, and later of steam-power, meant that a riverside location and the availability of coal were of overriding importance. The valleys of the River Holme and Fenay Beck (a tributary of the River Colne) were adjacent to the coalfield, while in the Colne Valley the construction of the canal, and later the railway, enabled coal to be transported there. The coal mines near Huddersfield were later worked out and the mining industry moved eastwards.

7. Another important influence upon the expansion of Huddersfield was the construction at the beginning of the 19th century of the canals from the Calder at Cooper Bridge (3 miles north-east of the centre of Huddersfield) via the Colne Valley to Lancashire. Huddersfield thus became a centre for east-west traffic, which was later reinforced by the development of the railway. It was during the first half of the 19th century, and particularly in the years around the middle of the century, that the development of Huddersfield was most rapid. In 1868 the town was granted its Charter of Incorporation as a Borough, and its centenary was celebrated recently. From this time also dates the pattern, typical of this area, of industry and housing stretching out along the river valleys.

8. Up to this time, Huddersfield had been almost exclusively a textile town, but the second half of the 19th century and the present century have witnessed the expansion of the chemical and engineering industries, both originally having close links with wool textiles. This diversification has been important in the past 50 years during which the textile industry has suffered a number of setbacks. Huddersfield has never suffered such high unemployment as some other areas more dependent on one major industry.

9. Reflecting the fortunes of the textile industry, the population of the area rose rapidly during the 19th century and the first part of this century, but between 1921 and 1961 it remained static at about 200,000. Since 1961, however, population has increased although at a slower rate than in the region or the country as a whole.

---

*Material for this section has been drawn from "The Story of Huddersfield" by R. Brook. Macgibbon and Kee, 1968.

PRESENT LOCAL ECONOMY

10. Employment statistics are the best available guide to the economic structure of an area. Table 1 shows the estimated numbers of employees in industries of importance in the study area in 1967, together with the proportion of employees in each industry compared with those for Yorkshire and Humberside and Great Britain.

11. The main point shown by these figures is the heavy dependence of the study area on manufacturing industries. At 59% of all employees it is much higher than the regional and national percentages although in line with many other parts of the West Yorkshire conurbation. Textiles is the largest single industry employing 29% of the total labour force and 39% of all female employees. Most of these workers are engaged in woollen and worsted manufacturing with a high proportion of the remainder in textile finishing. Huddersfield has a world wide reputation for the manufacture of high quality worsted fabrics, a large proportion of which are exported. The second in importance is the engineering and metal-using group accounting for 18% of the labour force, mainly males, with a high proportion of skilled workers. The largest section of this group is mechanic engineering - gears, valves and boiler fittings, textile machinery and a variety of general engineering work. Tractors and electric motors are also important. Chemicals employ 6% of the labour force, producing dyes and other chemicals, partly for the textile industry as well as pharmaceuticals and fireworks.

12. Service industries are under-represented in the local economy. Only about one third of the study area labour force is in the service group, compared with two-fifths regionally, and a half nationally. All the service industries, except for professional and scientific services, are comparatively small and are mainly devoted to serving the needs of the local population rather than a wider market. The study area is fairly close to Bradford, Leeds and Manchester, and is able to use services provided at these important centres.

13. Employment in the two remaining sectors of the local economy, primary industry and construction, is small. About two thirds of the employees in primary industries are in coalmining. The remainder are in agriculture which provides few jobs because of the generally poor quality of land, much of which is upland suitable only for grazing. Detailed examination of the agricultural economy has been excluded from this report because there are no features peculiar to the area - its farming practice and problems are reproduced throughout the industrial Pennines. For a note on agriculture in the study area see Appendix J.

TABLE 1. TOTAL EMPLOYEES BY INDUSTRY, 1967

Order	Industry	Total Employees Study Area	Percentage of Total Employees		
			Study Area	Yorkshire and Humberside	Great Britain
I & II	Primary Industries: Sub Total	1,600	2	7	4
IV	Chemicals and Allied Industries	5,500	6	2	2
VI, VIII & IX	Engineering, Electrical and Metal Goods and Vehicles	17,300	18	14	16
X	Textiles	28,100	29	8	3
etc.	All other manufacturing Industries	5,900	6	19	17
III - XVI	Manufacturing Industries: Sub-Total	56,800	59	43	38
XVII	Construction: Sub-Total	5,300	6	7	7
XIX	Transport and Communication	2,800	3	6	7
XX	Distributive Trades	7,800	8	11	12
XXII	Professional and Scientific Services	10,100	11	10	11
XXIII	Miscellaneous Services	4,400	5	7	9
XXIV	Public Administration and Defence	3,200	3	5	6
XVIII & XXI	All other Service Industries	3,000	3	4	5
XVIII - XXIV	Service Industries: Sub-Total	31,300	33	43	51
	GRAND TOTAL	95,200	100	100	100

Notes: 1. Industries with less than 2,500 employees are not shown separately.

2. Figures are rounded to the nearest hundred and do not therefore add up in all cases to the totals shown.

3. Unlike Yorkshire and Humberside and Great Britain, figures for the study area do not include an allocation for permanent civil servants and certain 'unlocated' workers. As many of these are in service industries, study area figures for this group are under-estimated. See Appendix A for further details.

2. COMMUNICATIONS

14. This chapter is concerned with the relationship of the study area to the national transport system. Figure 2 shows that the main lines of communication through the study area are east-west; from Leeds and Wakefield in the east across the Pennines to South East Lancashire in the west. Internal communications within the area are considered in Chapter 5 as part of the assessment of the urban structure.

ROADS

15. Road links with the rest of the country are dominated by the Leeds-Manchester trunk road (A. 62), the only trunk route* in the study area, which runs through the centre of Huddersfield, along the Colne Valley and across the Pennines to Oldham. Other main roads radiating from Huddersfield are:-

(i) the A. 641 northwards to Brighouse and Bradford;

(ii) the A. 642 eastwards to Wakefield;

(iii) the A. 637 south-eastwards to Barnsley;

(iv) the A. 629 southwards to Sheffield via Penistone;

(v) the A. 616 southwards to Sheffield via the Flouch Inn (2½ miles south of the study area boundary), where it joins the Sheffield-Manchester trunk road (A. 628);

(vi) the A. 6024 south westwards to Woodhead, also on the Sheffield-Manchester trunk road;

(vii) the A. 640 westwards to Rochdale; and

(viii) the A. 629 north westwards to Halifax and Keighley, where it joins the Doncaster-Kendal trunk road.

In addition there are two other east-west routes of importance to the study area:-

(ix) north of the study area the A. 644 from Dewsbury up the Calder Valley to Brighouse and Denholme;

(x) in the southern part of the study area the A. 635 from Doncaster and Barnsley to Denby Dale, Holmfirth and Manchester.

16. Many of these roads carry heavy volumes of traffic. The A. 62 in particular is seriously overloaded, especially the section along the narrow Colne Valley and through the built-up area of Huddersfield. The exposed section across Standedge is subject to heavy snow-fall in winter. The A. 641 to Bradford and the A. 629 to Halifax also suffer from serious congestion. Both the Sheffield roads, the A. 629 and the A. 616, have

---

* For an explanation of this and other terms used in this report see Appendix A.

sections of winding rural road unfitted for heavy traffic. The Sheffield-Manchester trunk road is also in need of improvement. Thus at least until very recently road communications between the study area and the rest of the country were poor.

17. This situation should be transformed, however, by the completion of the London-Yorkshire Motorway (M. 1) and the Lancashire-Yorkshire Motorway (M. 62). The M. 1, which was opened throughout its length between London and Leeds in October 1968, passes within two miles of the eastern extremity of the study area and within some 10 miles of Huddersfield. The M. 62 is programmed for completion between Worsley (west of Manchester) and Lofthouse (on the M. 1) in 1972 and will closely follow the northern boundary of the study area; its extension to Gilberdyke (on the A. 63, 17 miles west of Hull) is included in the preparation pool.

18. Consideration is also being given to the improvement of the A. 644 between Brighouse and Dewsbury, including a Mirfield By-Pass, which would provide a good dual carriageway road from Brighouse to Wakefield; none of these schemes is yet in the preparation pool however. The Ministry of Transport is also conducting a project feasibility study in connection with east-west routes across the Pennines south of M. 62. One of the possibilities being considered is the construction of a new road, possibly to motorway standards, approximately on the line of the existing Sheffield-Manchester trunk road (A. 628) via Woodhead.

19. The effect on the study area of all these improvements is likely to be considerable. Assessments of the likely direct and indirect effects of M. 1 and M. 62 on traffic flows in the conurbation are being made by the consultants commissioned to carry out the West Yorkshire Transportation Survey. It is already clear that these effects will be substantial. A study of the economic effects of the M. 62 is being carried out for the Ministry of Transport by Professor Gwilliam of the Leeds University Centre for Transport Studies, but its study of the longer term effects will not be complete until 1976. As for the improvement of the A. 644 and a possible new road from Sheffield to Manchester, these would have an important effect on communications with the northern and southern parts of the study area respectively; the A. 644 in particular, together with proposed improvements between it and the centre of Huddersfield (see Chapter 5), would provide a first class route to the M. 1 which might well be used in preference to the existing shorter and more direct route via A. 642 and A. 637.

20. Some evidence of the potential importance of the M. 62 to manufacturers in the study area is provided in the industrial survey carried out as part of the study. In reply to a question about the significance of this motorway, 36 of the 67 firms responding considered that it would bring them significant benefits. A number of firms referred to improvements in delivery times from suppliers and to customers within the West Riding and Lancashire, most of which will be brought within an hour's travelling distance. The importance of improvements in communications to the ports of Liverpool and Humberside is acknowledged by a number of export firms; others see the motorway as part of an improved network of motorways giving quicker access to national markets and lower transport costs and facilitating the delivery of raw materials and supplies to their factories.

21. Because of the development of the national motorway system, the total population within 4 hours travelling time of Huddersfield will, by the mid-1970s, be very much greater than it is now. Thus very much larger markets and/or sources of supply will be brought within a limit that can normally be served by return trips within a single day. But the national motorway system will bring similar benefits to other towns. In order to illustrate this we have calculated the total populations (1967 figures) that will be within four hours of Huddersfield and a number of other selected towns in the mid-1970s;

the results of this exercise are shown in Table 2. This shows that, along with four other locations, Huddersfield would be within range of 35-40 million people, compared with only 22 million people within a 4 hour journey at present.

TABLE 2. ESTIMATED POPULATION WITHIN FOUR HOURS' TRAVELLING TIME OF SELECTED TOWNS BY MID-1970s

	1967 Population within four hours' travelling time by road (millions)	Index (G.B. population in 1967 = 100)
Coventry	42.5	79
Luton	40.4	75
Derby	39.8	74
Gloucester	38.8	72
Huddersfield	37.5	70
Warrington	36.6	68
Doncaster	36.2	67
Cardiff	32.0	60
Hull	28.2	53
Southampton	20.7	39
Middlesbrough	20.3	38
Falkirk	6.3	12

Notes: (1) The speed assumptions used were as follows:-

(a) motorways - 50 m.p.h.

(b) other roads - 30 m.p.h.

(c) towns - 15 m.p.h.

The A.1 south of Newcastle is treated as a motorway for the purpose of calculating average speeds.

(2) The towns selected represent the major concentrations of population in Great Britain. In order to obtain a fair set of comparisons, towns have been chosen which are favourably situated in relation to the national road network.

RAILWAYS

22. Huddersfield is situated on the more important of British Railways' two trans-Pennine passenger routes between Leeds and Manchester. (The other is the more northerly route via Bradford, Halifax and the Calder Valley, which is of equal importance as far as freight is concerned.) The only other railway route in the study area is the branch line from Huddersfield to Clayton West and Penistone; this is described in more detail in Chapter 5.

23. The main line through Huddersfield and the Colne Valley is used on weekdays by seven or eight trans-Pennine trains in each direction between Hull and Liverpool, calling at Leeds, Huddersfield and Manchester. There are also one or two trains between Leeds and Liverpool, a few between Leeds and Manchester only, and two between Liverpool and Newcastle; all of these trains stop at Huddersfield. In addition, there are six or seven trains between Leeds and Huddersfield only. Passengers for London are catered for by one through train a day in each direction between Huddersfield and King's Cross; at other times these passengers must use one of the seven trains per day in each direction between Huddersfield and Wakefield, changing at Wakefield. The inadequacy of passenger services to London was commented on by firms in the industrial survey. Finally, there is one train a day in each direction between York, Leeds, Huddersfield and Aberystwyth, and one train from Scarborough to Manchester.

24. Almost all the passenger services on the routes radiating from Huddersfield operate at a loss. Section 39(1) of the Transport Act 1968 empowers the Minister to make grants to the British Railways Board, as from 1st January, 1969 and for periods not exceeding three years at a time, for providing unremunerative railway passenger services which he considers should be retained for social or economic reasons. The Minister has decided to grant-aid passenger services on all the routes radiating from Huddersfield for a period of one year (with the exception of the Huddersfield-Manchester local service, which is the subject of a withdrawal proposal and which therefore attracts a short-term grant under section 39(4) pending a decision). All cases in respect of which section 39(1) grants are made will be reviewed within the period of grant and the Minister will then decide whether to continue the grant at its existing level, to pay grant only on a reduced level of service or to withdraw the grant altogether. In the latter event it would be for the Board to decide whether to withdraw the service, although if this meant closure of a station or withdrawal of all passenger services from a section of line the case would have to be referred to the Minister for his consent in accordance with the normal statutory procedure.

25. Heavy freight traffic between West Yorkshire, Humberside and the North-East on the one hand and Manchester, Liverpool and South Lancashire on the other is carried on the main line through Huddersfield and the Colne Valley. Little of this traffic originates in or is destined for the study area, however. The most important traffic originating in the study area is coal from the collieries at Park Mill and Emley Moor, which uses the branch line from Clayton West. The most important traffic destined for the study area is also coal, routed to the coal concentration depot at Hillhouse, near Huddersfield. The traffic generated by industrial firms in the area appears small. The firms responding to the industrial survey* reported that only about 4% of their output and 9% of their inward consignments of materials and supplies are transported by rail. Rail transport is most important to the chemical and engineering industries, accounting for 10% and 14% respectively of their inward consignments. In reply to a question about the adequacy of rail goods services 14 firms (of 41 responding) indicated some dissatisfaction, principally on grounds of delay. One large firm complained that the nearest main terminal is at Leeds some 19 miles away. The nearest Freightliner depots are at Leeds and Sheffield.

26. There is spare capacity on the trans-Pennine route which has quadruple track as far west as Marsden, where it narrows to double track to tunnel under Standedge. British Railways intend shortly to reduce this route to double track throughout, but they are satisfied that it will still be able to cope with all demands that can be foreseen.

---

* It should be noted, however, that only 28% of the firms approached did respond to the industrial survey.

INLAND WATERWAYS

27. The only two inland waterways in the study area are the Huddersfield Canal (or the Huddersfield Broad Canal) and the Huddersfield Narrow Canal, both owned and managed by the British Waterways Board. The Huddersfield Broad Canal extends from Aspley Basin in the centre of Huddersfield to a junction with the Calder and Hebble Navigation at Cooper Bridge. It is still open to navigation but has not been used for commercial traffic for about 10 years. The Transport Act 1968 provides that this canal shall be one of a number of cruising waterways, principally available for cruising, fishing and other recreational purposes. The Huddersfield Narrow Canal extends for 20 miles from Huddersfield, where it flows into the Huddersfield Broad Canal, to Ashton Junction where it flows into the Ashton Canal. Closed to navigation, it has for many years been maintained as a water channel, and many lengths are piped. Water supplies, deriving from reservoirs in the summit area near Standedge Tunnel, can for the most part be passed in either direction as required. Revenue from water sales is substantial and supplies remain available for sales to be increased.

AIRPORTS

28. The nearest civil airports to Huddersfield are Yeadon (about 45 minutes away by road), Ringway (about 70 minutes) and the East Midlands Airport at Castle Donington (about 80 minutes). There is also a private unlicensed aerodrome at Crosland Moor operated by a major engineering company. It is a small executive aerodrome, is not generally available for outsiders and in any case may be used only with the prior permission of the owners.

29. In June 1966 the Consultative Council for Airport Development in Yorkshire and Humberside, a body representative of local planning authorities and other interested parties in the region, commissioned a study of the airport requirements of the region from Alan Stratford and Associates. The consultants' report, "An Airport Programme for Yorkshire and Humberside", was published in June 1967.

30. The effect of the report's proposals on the study area, if they were implemented, would be to improve the facilities available at Yeadon, to create at Goole/Thorne an alternative airport to Ringway and also to improve the opportunities for executive and business flying, by developing facilities at Todwick, about 40 minutes from Huddersfield via the M. 1. Goole/Thorne would be about 50 minutes from Huddersfield via the M. 62, so that from all except the eastern parts of the study area Ringway would still have a marginal advantage. Indeed the most significant development in improving access to air services, irrespective of the Stratford recommendations, is likely to be the completion in the early 1970s of the M. 62 and other road schemes proposed in the Manchester area, which will bring Huddersfield within a convenient 45 minutes of one of the country's most important airports outside London; in this respect Huddersfield will be as favourably situated as any town in Yorkshire and Humberside.

3. HUMAN RESOURCES

POPULATION

THE PRESENT POPULATION

31. The population of the study area in 1968 was some 207,000, representing 4.3% of the population of the Yorkshire and Humberside Region. Nearly two thirds of this population lived in Huddersfield C.B. (131,000).

32. Compared with the average for the region and the country as a whole, the study area has a higher proportion of its population in the retirement age groups with correspondingly lower proportions of children and persons of working age. Appendix B.3 shows the distribution of the study area's population in 1966 by broad age and sex groupings and the data are summarised in Table 3.

TABLE 3: POPULATION AGE STRUCTURE, 1966

Area	Age/Sex Groups (percentages)				
	Children	Working Age		Retirement Age	
	Males and Females 0-14	Males 15-64	Females 15-59	Males 65 and over	Females 60 and over
Study Area	21.8	31.6	29.1	5.3	12.1
Yorkshire and Humberside	23.6	32.0	29.3	4.6	10.5
Great Britain	23.3	31.8	29.5	4.7	10.7
Saddleworth U.D.	21.2	31.9	31.2	5.2	10.5

33. A feature of the composition of the study area's population is the presence of a large number of Commonwealth immigrants. The 1966 Census records 5,800 people born in Commonwealth countries, nearly all of whom live in Huddersfield C.B. But the Census does not distinguish children of Commonwealth immigrants who have been born in this country. In "Immigrants in West Yorkshire"* it is estimated that in 1967 the Commonwealth immigrant community in Huddersfield numbered some 12,000 (i.e. 9% of total population) composed of 6,000 from the West Indies, 5,000 from Pakistan and 1,000 from India.

---

* "Immigrants in West Yorkshire" by E. Butterworth. Institute of Race Relations, 1968.

PAST TRENDS

34. Table 4 shows that the population of the study area increased by 3.0% between 1951 and 1968, from 201,000 to just over 207,000. This is a low rate of growth compared with the regional increase of 6.3%, and the national increase of 10.0%. Numerically, most of the increase took place in Huddersfield C.B., but the rate of increase was greatest in Meltham U.D. and Kirkburton U.D. In Colne Valley U.D. and Holmfirth U.D. there was a decline of population.

TABLE 4. HOME POPULATION TRENDS 1951-68

Area	Home Population 1951	Estimated Changes 1951-68				Home Population 1968
		Total Change		By births and deaths	Balance (mainly migration)	
		No.	%	%	%	
Great Britain	48.92m	4.86m	10.0	9.5	0.5	53.78m
Yorkshire and Humberside	4.49m	0.28m	6.3	8.6	- 2.3	4.80m*
Study Area	201,140	6,010	3.0	3.9	- 0.9	207,150
Huddersfield C.B.	128,000	2,990	2.3	5.4	- 3.1	130,990
Colne Valley U.D.	22,090	-1,030	- 4.7	0.9	- 5.6	21,060
Denby Dale U.D.	9,620	750	7.8	1.4	6.4	10,370
Holmfirth U.D.	18,960	- 70	- 0.4	0.3	- 0.7	18,890
Kirkburton U.D.	17,400	2,240	12.9	1.9	11.0	19,640
Meltham U.D.	5,030	1,170	23.3	3.6	19.7	6,200
Saddleworth U.D.	16,640	2,690	16.2	- 0.5	16.7	19,330

* As a result of boundary extensions in 1967, the home population was inflated by about 33,000 persons. Consequently the total change figure does not equal the difference between the two end dates.

35. The overall increase in population resulted from a combination of a moderate natural increase and a very small net loss by migration. The moderate rate of natural increase is attributable to the relatively "old" age structure and, even when allowance is made for this factor, to high death rates. Birth rates, after adjustment for the age structure, have tended to be above average. The loss by net outward migration of 0.9% over the 17 years compares favourably with the regional loss of 2.3%. Table 4 and Figure 3 show that Denby Dale U.D., Kirkburton U.D. and Meltham U.D. experienced net inward migration; while Colne Valley U.D., Holmfirth U.D. and Huddersfield C.B. have had net outward migration, although the rate of loss in Huddersfield C.B. has been the smallest of any County Borough in the West Yorkshire conurbation.

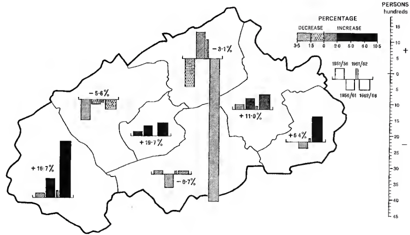


Fig. 3. HOME POPULATION : ESTIMATED "BALANCE INCLUDING MIGRATION" 1951–1968

The heights and widths of the columns are proportional to the mean annual net gain or loss, and to the lengths of the period respectively. Thus, volume of "balance including migration" is represented by the area of the columns. Net movements of less than 50 persons are not shown. The shadings indicate the proportion of mean annual balance to the population. Percentage change over the period 1951–1968 as a whole is given in figures. The net total for the study area 1951–1968, showed a loss of 1,800 or 0·9 %

36. An examination of changes within the period 1951-68 shows that trends in net migration have varied. Between 1951 and 1956 the area experienced net outward migration, but from 1956 to 1961 and during 1961-62 when Commonwealth immigration was at its height the balance of migration was inwards. Since 1962, however, further net outward migration has occurred and at a higher rate than in the early 1950s.

37. Unfortunately we know very little about the pattern or mechanics of the migration process. The Yorkshire and Humberside Standing Conference of Local Planning Authorities is conducting a survsy to assess the scale of migration into and out of the region and between areas within the region, the types of people involved and their reasons for moving. At the time of writing no results are available. With the recent publication of the 1966 Census, however, information on certain aspects of migration in the period 1961-66 has become available. This information was collected on a 10% basis and is therefore subject to sampling errors which increase as the numbers decrease. For this reason comments on the figures are in very broad terms only. (See Appendix A for additional comments).

38. Data on the origin and destination of migration movements show the large part played by overseas immigrants. Nearly a quarter of the gross immigration movement into the study area between 1961 and 1966 came from abroad. This excludes overseas immigrants already in this country in 1961 who have subsequently moved to the area. Excluding overseas immigrants, about 40% of all moves involving the crossing of local authority boundaries were to other parts of the study area, particularly from Huddersfield C.B. into the surrounding suburbs and rural areas. These local movements are motivated mainly by housing considerations and are not directly related to the area's overall net migration situation. Of movements out of the study area it is interesting to note that the area suffered a relatively large net loss to Lancashire and Cheshire, particularly to the Greater Manchester area. An analysis of migrants moving relatively long distances, i.e. approximately 30-35 miles and over, shows that the study area had a net gain by migration from places to the north and a net loss to the Midlands and South.

39. An examination of the broad age structure of migrants during this period shows that the net loss was common to all the age/sex groups specified in the Census. The largest net loss, both numerically and proportionately, was experienced in the retirement age groups. The working age groups also lost population but these particular figures refer to movements within Great Britain only, thus excluding the Commonwealth immigrants, many of whom would be in these age groups.

40. The most significant feature shown by an analysis of the occupation, socio-economic group and industry structure of economically active migrants (which again only relates to movements within Great Britain) is the relatively heavy net loss of professional and managerial groups (Table 5). There was also a net loss of intermediate and junior non-manual workers and personal service workers. The net loss of these two broad types of workers is reflected in the occupational classification by the net loss of what broadly may be termed 'office' occupations, and in the industrial classification by the net loss from service industries. There was also a net loss of skilled workers, foremen and own account workers, On the other hand, the study area had a very large net gain of semi-skilled and unskilled workers. This figure would undoubtedly have been greater if immigrants from abroad had also been included.

TABLE 5. SOCIO-ECONOMIC GROUP STRUCTURE OF ECONOMICALLY ACTIVE MIGRANTS, 1961-66

Socio-economic group	Immigrants from elsewhere in Great Britain	Emigrants to elsewhere in Great Britain	Balance
Managerial and Professional	1,700	2,240	- 540
Intermediate and Junior Non Manual Workers, Personal Service Workers	3,880	4,130	- 250
Foremen, skilled manual and own account workers (other than professional)	3,270	3,570	- 300
Semi-skilled and unskilled workers	2,600	1,760	+ 840

Note: For definition of groups, see Census.

FUTURE POPULATION

41. Estimates have been made of the natural increase that may be expected from the existing (1966) population and also of the effect on this population of a continuation of recent net outward movement. Both estimates are controlled by projections of natural increase and migration for the region and the West Yorkshire sub-division of the region, made by the Registrar General in 1968. For the study area, the results show an estimated natural increase of nearly 18,000, giving a population of 224,000 in 1981. If outward migration and its consequential effects on births and deaths is taken into account, the population could be some 219,000 compared with 207,000 in 1968.

42. These projections are not a forecast of the number of people who will actually be living in the study area since this will depend also on the economic prospects of the area relative to other areas. This matter is discussed in Chapter 8.

LABOUR SUPPLY

43. Many surveys have shown that a supply of suitable labour is an important factor in attracting industry to an area. In our own industrial survey labour was mentioned more often than any other factor in reply to a question regarding the locational advantages and disadvantages of the area (see Appendix C).

SIZE OF LABOUR CATCHMENT

44. Analysis of the 1966 Census journey to work data shown diagramatically in Figure 4 illustrates that, in spite of the nearness of other large centres within the conurbation, the study area forms a well defined and largely self-contained labour catchment of some 100,000 economically active persons. Most of the 7,000 work journeys outside the

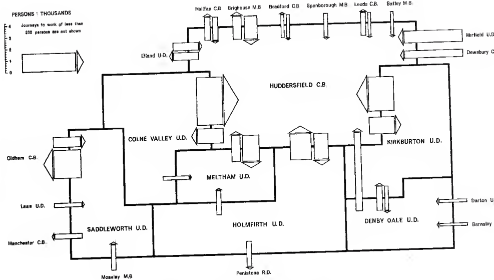


Fig. 4. JOURNEY TO WORK 1966

The arrows represent work journeys between local authorities area are very local - to Mirfield, Brighouse, Elland etc. Large towns such as Halifax, Bradford, Wakefield and the Dewsbury/Batley area are all within about 12 miles (centre to centre) of Huddersfield, yet only 1,600 people, or 1.6% of the study area's economically active residents, travel to them for work, and only 1,700 persons travel in the opposite direction.

45. The labour catchment area is highly integrated in the sense that the commuting pattern is dominated by movement between the rest of the study area and Huddersfield C.B. Over two thirds of the commuters from other local authority areas in the area work in Huddersfield C.B. This unified structure is important for the local economy as it enables the majority of employers to draw on labour throughout the area. In addition, employees can take advantage of the jobs available without being obliged to undertake unduly long or difficult journeys to work. This concentrated pattern of workplaces also facilitates the movement of people to work by public transport. But the extent to which a labour catchment of this size, despite its efficient structure, enables the economies of scale to be gained is an open question at present.

TYPES OF LABOUR AVAILABLE

46. It is not possible to make any detailed assessment of the range of skills and types of labour available in an area, but some of the factors contributing to labour quality have been investigated. Data on these are summarised in Table 6.

47. The age composition of the labour force is important because younger workers are often more adaptable than older workers to new techniques and methods of working and are generally more easily re-trained. Table 6 shows that the study area has an above average proportion of workers aged over 45.

48. Evidence as to the general health of the labour force as reflected in absence from work through illness, is contained in a survey by the then Ministry of Pensions and National Insurance in 1961-2 which investigated the causes of incapacity for work in terms of man-days lost and the number of men starting one or more spells of incapacity. Table 6 and Appendix H2 show that the record of Huddersfield C.B. was considerably better than Great Britain for all causes.

49. Although we have no information on the general levels of education received by the labour force, the 1961 Census contains data of the age at which all people aged 25 and over in 1961 completed their full-time education (the terminal education age) which may be taken as a crude measurement of the educational level attained. Table 6 shows that, if the terminal education age of 17 and over is taken as a measurement, the study area has, in relation to England and Wales, a poor record but no worse than the region as a whole.

50. No figures have been collected on the academic achievements of young people in the study area in recent years - G.C.E. results for example - but we have analysed information on the number of pupils staying on at school after the age of 15, which gives a rough measurement of the amount of education received by recent recruits to the labour force. But of course some of these pupils leave the area on finishing school or soon afterwards and are therefore lost to the local labour force. The figures in Table 6 show that in the study area the proportion of pupils staying on at school beyond the statutory leaving age has been substantially below the national and regional averages in recent years. On the other hand, there is a heavier reliance than elsewhere on apprenticeships where further training is undertaken and education is continued to Ordinary National

TABLE 6. SOME INDICATORS OF TYPES OF LABOUR AVAILABLE

Area	AGE		SCHOOL-LEAVING AGE						TRAINING	HEALTH
	% of Economically active Population aged over 45 1966		% of Population aged 25 and over with a terminal education age of 17 and over 1961		Pupils remaining at school until 16 as a % of those aged 13 3 years earlier Average 1966-67		Pupils remaining at school until 17 as a % of those aged 13 4 years earlier Average 1966-67		Boys (15-17) entering apprenticeship as a % of total new entrants into employment 1967	Man-days per thousand males lost through incapacity for work 1961-62
	Males	Females	Males	Females	Males	Females	Males	Females		
Study Area	43.2	41.9	6.8	5.1	22.6(1)	20.3(1)	14.4(1)	13.1(1)	62	7,820(1)
Yorkshire and Humberside	40.9	37.7	6.2	5.6	25.0	22.8	14.3	12.1	52	10,536(3)
England and Wales	41.0	38.5	9.2	8.8	27.6	26.1	15.1	13.1	43(2)	8,854(2)
Saddleworth U.D.	44.9	38.9	9.6	9.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Notes: (1) Figures for Huddersfield C.B. only.
(2) Figures for Great Britain
(3) Figure for East and West Ridings
n.a. = not available

Certificate and sometimes to Higher National Certificate level. Of the boys (15-17 years) in the study area who first entered employment in 1967, some 62% undertook apprenticeships, a much higher proportion than in either the region (52%) or Great Britain (43%).

51. Training facilities of all types in the study area compare very favourably with those of areas of similar size in other parts of the country. Courses in a wide range of craft, commercial and technician trades are held in the local Ramsden Technical College and at the College of Technology, many leading to recognised qualifications. The catering department at this latter college is of national repute. The College of Technology is the nucleus of a Polytechnic to serve the whole western part of the region. Opportunities for instruction in subjects for which local demand is small are available in Bradford, Leeds and Manchester. Details of the arrangements for formal training in the area's principal industries are provided in Appendix E.

52. This high degree of training probably offsets the effects of a tradition of early school-leaving, giving a labour force which, although somewhat older than average, possesses a considerable depth of skill. This is reflected in Census data on socio-economic status set out in Table 7, which shows the study area to have a higher proportion of skilled manual workers than Yorkshire and Humberside and England and Wales. This is despite the influx in recent years of Commonwealth immigrants, a large number of whom are unskilled and semi-skilled workers.

TABLE 7. SOCIO-ECONOMIC GROUPS OF THE MALE ECONOMICALLY ACTIVE POPULATION, 1966

Socio-economic groups	Numbers in each group per 1,000 occupied male population			
	Study Area	Yorkshire and Humberside	England and Wales	Saddleworth U.D.
Managerial and Professional	141	132	153	262
Intermediate and junior non-manual workers, personal service workers	147	150	182	139
Foremen, skilled manual and own account workers (other than professional)	444	424	395	411
Semi-skilled and unskilled workers	265	282	249	185
Armed forces and inadequately described occupations	3	12	21	3
TOTAL	1,000	1,000	1,000	1,000

FUTURE SUPPLY OF LABOUR

53. Estimates of the effective supply of labour up to 1975 have been based on the projected population over school-leaving age with deductions made for the unemployed and inactive. The population estimates used were those which took into account the possible effects of migration (see para. 41). Despite the increase in total population projected for the area, the number of people available for work is expected to fall because of the increase of dependent population. These estimates, which are discussed in greater detail in Appendix F, indicate that the effective supply of labour may fall by some 300 to 2,600 between 1966 and 1971 and by a further 2,100 to 2,600 by 1975, with females accounting for the greater part of the decline. This rate of decline is greater than that expected nationally between 1966 and 1975. Because labour supply tends to adjust to demand these estimates should not be regarded as precise but only as illustrating the likely broad trend in labour supply.

4. INDUSTRY AND EMPLOYMENT

54. A brief description of the area's industrial structure was given in Chapter 1. The aim of this chapter is to analyse this structure and the recent changes that have taken place together with a consideration of general conditions of labour supply and demand. An interpretation of these factors is suggested in Chapter 8. Some of the material in this chapter is derived from the industrial survey carried out as part of the study but the rather disappointing overall response (28% of the firms sampled covering 35% of total employment in manufacturing industry) to some extent reduces the value of the findings. Details of the survey are given in Appendix C.

RECENT TRENDS

55. It is difficult to discern a clear long term trend in the level of employment in the study area since 1953 because of quite wide annual fluctuations, some of which have not been in line with the economic cycle. Between 1953 and 1959 the number of employees fell from 94,800 to 92,200, rose by 1963 to 96,600 but at 1967 had fallen to 95,000, virtually the 1953 level. Table 8 which compares changes in the study area with those in Yorkshire and Humberside and Great Britain shows that the study area has done relatively poorly.

TABLE 8. PERCENTAGE CHANGES IN TOTAL EMPLOYEES, 1953-67

Area	Percentage Changes in Employees		
	1953-59	1959-67	1953-67
Study Area	- 3	+ 3	-
Yorkshire and Humberside	+ 3	+ 4	+ 7
Great Britain	+ 5	+ 6	+ 12
Saddleworth U. D.	- 6	- 3	- 9

Note: Because of rounding the figures do not add up in all cases to the totals shown.

56. Table 9 and Figure 5 show the changes in employment by broad industrial groups for the period 1959-67 and comparisons with regional and national changes; (trends from 1953 to 1959 are not shown owing to changes in the Standard Industrial Classification in 1958). In broad terms the loss of 1,900 employees by primary and manufacturing industries was more than offset by an increase of 4,900 workers in construction and service industries. Even so, growth of employment was less than in the region or Great Britain during this period.

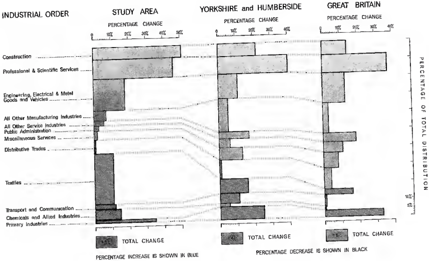


Fig. 5. EMPLOYMENT – CHANGES 1959–67 and DISTRIBUTION 1967

The length of the bars indicates the rate of change during the period 1959–67 and the depth of the bars is proportional to the numbers in each industrial order in 1967. The total change is thus approximately represented by the area of the bars.

TABLE 9. CHANGES IN TOTAL EMPLOYEES BY INDUSTRY, 1959-1967

Order No.	Industry	Estimated Employment (thousands)			Percentage change 1959-1967		
		1959	1967	Change	Study Area	Y & H	G.B.
I & II	Primary Industries	2.3	1.6	-0.6	-28	-25	-33
III - XVI	Manufacturing Industries	58.1	56.8	-1.3	- 2	+ 2	+ 5
XVII	Construction	3.5	5.3	+1.8	+51	+22	+14
XVIII - XXIV	Service Industries	28.2	31.3	+3.1	+11	+ 9	+12
I - XXIV	GRAND TOTAL	92.2	95.2	+3.0	+ 3	+ 4	+ 6
	Manufacturing Industries						
X	Textiles	31.5	28.1	-3.4	-11	-16	-16
	(Woollen and Worsted)	(27.8)	(24.1)	(-3.7)	(-13)	(-21)	(-19)
VI, VIII & IX	Engineering and Electrical, Metal Goods and Vehicles	14.6	17.3	+2.7	+18	+11	+13
IV	Chemicels and Allied Industries	6.5	5.5	-1.0	-15	+ 5	-
etc.	All other Manufacturing Industries	5.5	5.9	+0.4	+ 7	+ 5	+ 3
III - XVI	Sub-Total: Manufacturing Industries	58.1	56.8	-1.3	- 2	+ 2	+ 5

Note: Because of rounding the figures do not add up in all cases to the totals shown.

57. Largely because of the big fall in employment in textiles and chemicals, the number of employees in manufacturing industries in the study area declined during this period in contrast with increases in the region and Great Britain. Nevertheless, there was considerable growth of employment in the other main manufacturing sector in the study area - the metal using industries. Within this group general engineering and machinery and tractor manufacture expanded very rapidly but there was some decline in employment in industrial plant and textile machinery.

58. During the same period employment in services in the study area was also growing. For most of the period it was only gradual but in the final year 1966/1967 there was very rapid growth. As everywhere, the most expansive sector was education and health services. Apart from a fall in transport and communications, there was little change in the other service industries.

59. Construction had a very big expansion (+ 1,800), representing a much greater rate of increase than regionally or nationally. This reflected a general increase in building activity in the area, particularly in public projects. Apart from town centre re-development there were large hospital and education projects and, latterly, construction work on the M. 62.

60. Employment in primary industries declined by 600, mainly in coalmining though there was also a small drop in agricultural employment.

61. Although both male and female employment increased slightly during this period, there were different trends in the broad categories of industry. Male employment increased in construction (+ 1,700), manufacturing (+ 1,000) and services (+ 400) but declined in primary (- 600). On the other hand, the main increase in female employment was in services (+ 2,700) whilst there was a big fall in manufacturing (- 2,200) mainly due to the decline of textile employment.

STRUCTURE

62. An analysis of the industrial structure shows that a relatively large part of the study area's employment is in industries where employment (nationally) is contracting. A classification of industry according to the rate of change of national employment (Table 10) shows that about 35% of the area's total employees and 53% of its employees in manufacturing and primary industries in 1966 were in industries where employment nationally had declined by more than 5% between 1961 and 1966, compared with 17% and 30% respectively in the country as a whole. There is little doubt that the industrial structure goes far in explaining the slow employment growth noted in the last section.

TABLE 10. PROPORTION OF EMPLOYEES IN GROWING AND DECLINING INDUSTRIES, 1966

Category	% of total employees			% of employees in primary and manufacturing industries		
	Study Area	Yorkshire and Humberside	Great Britain	Study Area	Yorkshire and Humberside	Great Britain
Growing industries	47	57	61	27	27	38
Intermediate industries	18	17	22	20	29	32
Declining industries	35	26	17	53	44	30

Notes: Growing industries (MLH's) are those in which employment in Great Britain increased by over 5% between 1961 and 1966.

Intermediate industries are those in which employment change was in the range of - 5% to + 5%.

Declining industries are those in which employment declined by more than 5%.

LINKAGES

63. An important aspect of industrial structure is the inter-relationships between industries since the economic performance of linked industries must be seen together. Data collected for the industrial survey show that linkages within the West Riding are strong.

TABLE 11. SOURCES OF PRINCIPAL MATERIALS AND SUPPLIES

Industry	Supplies as % of total in this Table	Source (%)			
		West Riding	Lancashire	Direct Imports from Overseas	All Other
All Manufacturing Industries	100	37	15	11	37
Textiles	34	83	8	3	6
Engineering	38	14	11	5	70
Other Industries	28	11	28	28	33

64. Table 11 shows that local manufacturing industries are dependent to a significant extent on supplies from sources within the West Riding. The importance of the West Riding as a market for the output of local firms is less marked but is nevertheless still significant, (Table 12). Local linkages are particularly important for wool textiles, the West Riding accounting for 31% of its sales and 83% of the principal materials and supplies used in production processes (mainly wool and woollen and worsted yarn) reflecting the horizontal organisation of some of the industry. With the exception of some textile machinery firms, the West Riding is of negligible importance as a market for the output of the engineering industry, nor is it an important source of supplies. Unfortunately no estimates are available for the area's third largest industry - chemicals. However, since dye-stuffs manufacture is important it is probable that linkages with the textile industry are substantial.

TABLE 12. DISTRIBUTION OF SALES

Industry	Sales as % of total in this Table	Destination (%)			
		West Riding	Lancashire	Direct Exports Overseas	All Other
All Manufacturing Industries	100	22	4	20	54
Textiles	51	31	2	26	41
Engineering	39	4	7	17	72
Other Industries	10	52	5	2	41

65. Industrial linkages based on the West Riding wool textile industry bring many advantages to the firms concerned. Not only do they benefit from internal economies such as reduced transport and stock carrying costs, but economies external to the firm may also be substantial. When a number of firms of a similar kind are located reasonably close together, a pool of skilled labour is created and specialised training, educational, marketing and technological facilities become feasible. Several textile firms in the study area, for example, referred to the services provided by the Wool Industry Research Association in Leeds and to the Wool (and Allied) Textile Employers' Council's Management Services Centre in Bradford.

NEW FIRMS

66. Of the 19,900 workers employed in 67 firms which responded to the industrial survey, 1,200 were employed in 10 units established since 1945. This is not a very high proportion of employment but as shortages of labour have persisted through most of the post-war period it is not surprising that the area has not attracted any very large new industries in recent years. This is also borne out by an examination of lists of principal employers and the relatively small area of new industrial floorspace requiring Industrial Development Certificates (see Chapter 5). The area, of course, has at no time received any financial assistance under the Government's distribution of industry policies.

WOOL TEXTILES

67. The textile industry is a particularly important element in the local industrial structure since its performance has significant repercussions on other sectors of the economy, both through its purchase of supplies and by the employment income it generates. Although the dependence of the local economy on the textile industry has been considerably reduced, it is still the largest employer of labour in the area, accounting for 49% of manufacturing employment and 29% of total employment in 1967. Of the total textile labour force, 86% are employed in woollen and worsted manufacture.

68. Figures for the output of woven wool fabrics show that the study area provides about 30% of the national output of woollen cloth and 13% of worsted cloth production. However, the fine worsted trade is concentrated in Huddersfield and, in terms of value, Huddersfield's share of national worsted cloth production is probably much higher. Table 13 shows that the output of woollen cloth in the first quarter of 1968 was the same in the study area as it had been five years previously, while national production had fallen slightly. On the other hand, whereas output of worsted fabrics in the study area had fallen by 19%, it had declined by only 11% nationally.

TABLE 13. DELIVERIES OF WOVEN WOOL FABRICS 1963-68

Year (First Quarter)	Deliveries of Woven Wool Fabrics ('000 sq. yards)			
	Woollen Cloth		Worsted Cloth	
	G.B.	Huddersfield Area	G.B.	Huddersfield Area
1963	40.45	11.77	39.71	5.70
1964	41.90		39.09	
1965	41.11		39.59	
1966	41.86		37.84	
1967	39.10		35.23	
1968	39.79	11.76	35.52	4.61
% change 1963-68	-1.6	-	-10.6	-19.2

69. Although comprehensive information about exports is not available, it is known from the industrial survey that of the textile firms responding to a question about the proportion of their output exported, direct exports accounted for about 26% of their production. However, the area is known to have a good export record; for example, the twelve companies which constitute the fine worsted manufacturing section of the Huddersfield Fine Worsted Export Sub-Group export at least 90% of their total production of £8m. *

70. Despite recent steps towards rationalisation, the wool textile industry as a whole is still mostly composed of small firms, some of them family businesses. Because of the variety of fabrics involved it is sometimes claimed that small production units are no disadvantage. However, the available evidence suggests that the industry is not making an adequate return on capital to finance the re-equipment needed to compete in modern conditions; in this regard small firms are at a disadvantage. Moreover, the industry is very labour-intensive and has a relatively low value of net output per worker. Because of this the industry has some difficulty in providing competitive wages and conditions to maintain an adequate labour force. This in turn increases the need for more labour-saving equipment. The industry is very conscious of these difficulties and together with the Government it is financing a comprehensive study, which is being carried out by consultants on behalf of the Economic Development Committee for the Wool Textile Industry, to consider the economic factors affecting the prosperity of the industry as a means of improving its performance.

71. Another study of special interest to the Huddersfield area has recently been carried out for the Wool Textile Industry's Economic Development Committee by the industry's own Management Services Centre*. It analysed labour utilisation practices in twelve Huddersfield companies engaged in the manufacture of fine worsted cloth by comparing the practice of each firm in terms of the number of labour hours worked per unit of output appropriate to each production process. The study showed that the total labour hours required by each company to produce a standard piece of cloth varied between 95 and 126 hours, a variation of about 30%. In some cases the survey demonstrated the advantages of certain types of automatic machinery as against manual operation. This was particularly marked in weaving, which accounts for 26% of total labour hours. Only 69 of the 920 looms in use were automatic and only 24 of these were running on a double shift. Since the survey was carried out several firms have engaged the Management Services Centre to carry out investigations based on the report's recommendations. The study is to be repeated and kept on a continuing basis so that progress can be checked. The wool textile industry is considering expanding the study to cover other sections of the industry.

72. Other wool textile firms in the area are known to have engaged the Management Services Centre to conduct similar investigations. One such firm has recently reported an increase in output of one-third without additional labour and earnings higher in some cases by up to £3 a week.

---

*"Manpower Productivity Comparison": a report prepared by the Wool (and Allied) Textile Employers' Council's Management Services Centre for the Economic Development Committee for the Wool Textile Industry. Published by the National Economic Development Office, 1968.

ENGINEERING AND METAL USING INDUSTRIES

73. There is a range of engineering and metal using industries in the area. In terms of employment some of these are expanding while others are declining. Employment in the production of textile machinery and accessories has fallen but this has been more than offset by increased employment in other sectors including tractors and electrical machinery. One of the features of the industry is the predominance of long-established firms, many of them over 100 years old. Although originally having close connections with wool textiles the industry has shown a striking ability to diversify and adapt itself to changing market conditions. The industry is characterised by the concentration of activity into a few fairly large firms. In 1967 five firms employed over 70% of the total labour force of 17,300. All these firms are independent as far as technical and financial control is concerned. This is an important asset to the study area since it has the effect of retaining technical expertise and industrial enterprise in the area and gives the possibility of broadening the base of the industry through the development of a new range of products. These five firms have provided most of the increase in employment in the industry in recent years. There seems little growth potential in the very few medium sized firms and the large number of very small firms, most of which have been small for a long time. There is little local interdependence of firms within the engineering industry (Tables 11 and 12).

74. Much of the industry is engaged in the manufacture of capital goods and is thereby dependent on investment in other industries. For example, several firms receive contracts from the Central Electricity Generating Board and will be affected by reductions in the power station programme. On the other hand, these and other firms supply plant to the chemical industry in which capital investment is currently increasing. In addition, some firms export a considerable proportion of their output and this tends to even out the effect of fluctuations in the home market. There are virtually no firms producing consumer goods - one of the most rapidly expanding sectors of the industry.

75. A factor inhibiting growth in the industry is the shortage of skilled labour, of which it employs large numbers. 51% of the total employment of the engineering firms responding to the survey were skilled or semi-skilled workers compared with 38% in textiles and 16% in chemicals (see Table 14). 11 of the 13 engineering firms replying to a question about their recruitment experience over the last two years indicated that the recruitment of skilled male workers had been "difficult". Because of this firms find difficulty in expanding production rapidly in times of economic expansion. In some cases the decline in employment in wool textiles has, by releasing labour, assisted growth in engineering and metal using firms, but those concerned are usually semi-skilled rather than skilled workers and often need re-training.

TABLE 14. GRADES OF LABOUR EMPLOYED

Grade of Labour	% of Total Employees, December 1967				
	Study Area (66 cases)				Saddleworth (7 cases)
	Textiles	Engineering and Electrical Goods	Chemicals and Allied Industries	Total including (2) (3) & (4)	Total
(1)	(2)	(3)	(4)	(5)	(6)
Management and Supervisory	5.1	7.3	16.9	8.4	7.1
Technical and Scientific	0.9	9.9	9.1	6.4	1.9
Clerical and Office	5.5	13.7	8.2	9.9	6.0
Skilled Workers	21.1	21.4	14.4	20.3	21.9
Semi-Skilled	16.7	29.7	1.1	19.7	15.4
Apprentices	1.7	6.3	2.1	4.1	2.5
Other Full Time Workers including Unskilled	41.6	9.5	45.0	27.0	39.8
Part Time Workers	6.9	2.0	2.2	3.7	5.1
Total	100.0	100.0	100.0	100.0	100.0

CHEMICALS

76. The chemical industry in the area has long been concerned with the manufacture of dyestuffs, principally for the textile industry, but also for other markets including exports. The development of the synthetic dyestuffs industry between 1856 and 1880 marked the initial stages in the development of industrial organic chemistry as it is known today. Since then the chemical industry in Huddersfield has diversified and now produces not only dyestuffs but a wide range of other organic chemicals and the intermediate chemicals necessary to produce them. Among these products are synthetic resins, herbicides, fireworks, rubber chemicals and intermediates such as sulphuric acid. Huddersfield also saw the first commercial manufacture of nylon in this country although this process was discontinued there in 1967. Since the chemicals produced are so complex, their manufacture requires considerable investment in plant. The main firms have long-term plans for development resulting in continuing increases in productivity.

77. The industry is characterised by a labour force which includes a high proportion of technical and supervisory staff. This was noted in the industrial survey where technical, scientific, management and supervisory staff accounted for 26% of the labour force, a much higher proportion than in the other main industries in the area (see Table 14). Despite inducements offered by the firms, the industry has had difficulty in attracting workers, particularly process workers and plant maintenance fitters. Labour turnover is substantial, due partly, if unavoidably, to the unpleasant processes and conditions in which some men have to work (see Chapter 5).

78. Figures of unemployment and of unfilled vacancies notified to Employment Exchanges do not give a complete measurement of the extent of unused labour resources or of labour shortages. Nevertheless they provide some indication of the relative overall pressure of demand for labour in different parts of the country. The figures since 1957 shown in Figures 6 and 7 illustrate the persistent shortage of labour in the study area during that period. The total number of unfilled vacancies exceeded the number wholly unemployed in nine out of the twelve years. This contrasts with the national position in which the number of unemployed usually exceeds the number of unfilled vacancies. The shortage of female labour was often acute and outstanding vacancies far exceeded the number unemployed for every year of the period. Male vacancies exceeded the number unemployed in seven of the twelve years.

79. Table 15 shows that total unemployment in the area has been consistently well below both the regional and national levels, despite the below-average rate of employment growth; moreover it averaged less than 1% in seven out of the twelve years. At its highest, annual average unemployment reached only 1.8% in 1958 and this was due mainly to short-time working during the textile recession. Throughout the recent period, unemployment has remained surprisingly low - even in January 1968 when more than 400 workers were made redundant, unemployment stood at only 1.4% compared with 2.6% regionally and 2.7% nationally.

TABLE 15. TRENDS IN TOTAL UNEMPLOYMENT, 1957-67

Year	Percentage Unemployment			
	Study Area	Yorkshire and Humberside	Great Britain	Saddleworth
1957	0.7	1.0	1.4	0.8
1958	1.8	1.9	2.1	2.7
1959	1.1	1.9	2.2	2.0
1960	0.7	1.2	1.6	0.4
1961	0.7	1.0	1.5	0.6
1962	1.2	1.7	2.0	0.7
1963	1.1	2.0	2.5	0.6
1964	0.6	1.3	1.6	0.5
1965	0.5	1.1	1.4	0.6
1966	0.5	1.2	1.5	0.4
1967	0.9	2.1	2.4	0.7
1968	1.1	2.6	2.4	1.1

Note: Unemployment rates are obtained by expressing the annual average of the monthly figures of total registered unemployed (including temporarily stopped) as a percentage of the estimated number of employees (employed and unemployed) at mid-year.

80. To supplement this information data on the wholly unemployed and on notified vacancies in June 1967 have been analysed by occupations and by industry. Despite a number of limitations which are outlined in Appendix D.2 the figures provide a rough

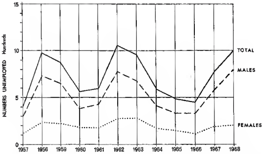


Fig. 6. NUMBERS OF WHOLLY UNEMPLOYED FOR MALES, FEMALES AND TOTAL IN THE STUDY AREA, 1957 – 1968

Showing the annual average of monthly figures of registered wholly unemployed.

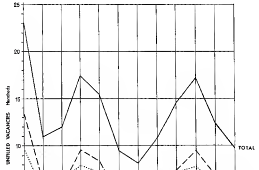


Fig. 7. NUMBERS OF UNFILLED VACANCIES FOR MALES, FEMALES AND TOTAL IN THE STUDY AREA, 1957 – 1968

Showing the annual average of monthly figures of unfilled vacancies notified to Employment Exchanges.

measure of the relative shortage of labour in each occupation and industry. Appendix D. 2 shows that for occupational groups the shortage was most striking in the case of skilled and semi-skilled occupations for men in engineering and wool textiles, and for women in wool textiles, transport and communication and the medical services. It is normal for unskilled men and women to constitute the largest group of the unemployed. In Huddersfield they outnumbered unfilled vacancies in the ratio of about 4:1, but this is a much lower ratio than in most other areas and the substantial number of unskilled vacancies outstanding suggests a steady demand even for unskilled workers.

81. The figures in Appendix D. 3 suggest that the industry experiencing the most severe shortage of labour is the wool textile industry. Many of the vacancies in this industry are for young persons for whom statistics were not available for the occupational analysis. Other industries where notified vacancies were significantly in excess of registered unemployed were engineering, transport and communication, and medical services.

82. The relatively high pressure of demand for labour in the area is also reflected in the level of activity rates (Table 16). These sbow that male activity is higher than in either the region or Great Britain. Because of the dominance of the textile industry, female activity rates have been traditionally high. They were in fact significantly higher than in either the region or Great Britain in 1959 but by 1966 the differential bad narrowed considerably.

TABLE 16. ACTIVITY RATES: PERCENTAGE OF THE POPULATION AGED 15 AND OVER IN EMPLOYMENT 1959, 1963, 1966

	1959	1963	1966
MALES			
Study Area	80.6	81.1	80.6
Yorkshire and Humberside	79.2	79.4	78.3
Great Britain	77.4	77.3	76.3
FEMALES			
Study Area	41.8	42.5	42.6
Yorkshire and Humberside	36.8	38.3	39.9
Great Britain	37.3	39.1	40.5

Note: Activity rates in this table are an estimate of employees who work in an area expressed as a percentage of the whole population aged 15 and over. They are liable to distortion because of travel to work patterns, but since the numbers travelling into and out of the study area for work are relatively small and approximately in balance, it seems reasonable to accept that the levels of activity in the area are fairly accurately reflected.

83. An analysis of activity rates by age groups based on data from the 1966 Census (see note to Table 17) shows that male rates for all age groups specified are similar to those of Great Britain except for the high level of economic activity in the 15-24 age group. Female rates in the study area are significantly higher than either national or regional rates in the 25-44 and 45-64 age groups.

TABLE 17. ACTIVITY RATES: ECONOMICALLY ACTIVE PERSONS RESIDENT IN THE AREA AS A PERCENTAGE OF THE POPULATION AGED 15 AND OVER, 1966

Age Group	Activity Rates			
	Study Area	Yorkshire and Humberside	Great Britain	Saddleworth U. D.
MALES				
15-24	84	81	81	82
25-44	98	98	98	100
45-64	96	95	95	96
65+	25	21	24	20
TOTAL	84	84	84	84
FEMALES				
15-24	63	64	64	59
25-44	52	46	47	58
45-64	51	45	46	52
65+	7	6	7	4
TOTAL	44	41	42	46

Note: Activity rates in this table are based on the 1966 Census data of economically active persons resident in the area as a proportion of the resident population aged 15 and over. The basis of calculation is thus different from that used in Table 16; in particular the activity rates are not distorted by journey to work patterns.

84. Further evidence of the tightness of the local labour market is provided by information about workers (other than construction industry workers) travelling by special transport organised by employers. On 31st December, 1967, about 1,050 workers (350 males and 700 females) were travelling daily from the Yorkshire Coalfield into the study area in this form of transport. The great majority (750) were from the Barnsley area. Some 750 were employed in wool textiles, 150 in electric motor manufacture and 150 in chemicals. At the same date, only about 250 workers (200 males and 50 females) resident in the study area were travelling outside in employer-provided transport.

85. In the industrial survey firms were asked to indicate their experiences over the last two years in the recruitment of full-time male and female workers. Eight categories of workers were listed. The most difficult categories to recruit were skilled and semi-skilled workers, apprentices and school-leavers. More firms indicated that recruitment of management and supervisory, technical and scientific, and clerical and office staff had been "satisfactory", than the number who indicated that recruitment had been "difficult".

86. Firms were also asked whether they had noticed any significant changes in the last ten years in the recruitment of full-time workers. Of the 67 firms, 41 indicated that recruitment is now "more difficult". The situation has deteriorated, particularly in the case of the textile industry. Of the 30 respondents from this industry, 25 considered the position "more difficult" and only five noticed "no significant change".

87. The evidence from a number of sources therefore shows that the area has for some time experienced a serious labour shortage which may have become more acute in recent years. The textile industry, which suffers from wage competition from other industries, is particularly affected. The situation in this industry, however, would have been much worse without the large numbers of Commonwealth immigrants recruited during the past few years.

WAGES AND EARNINGS

88. It is always very difficult to obtain an accurate assessment of earnings in a small area. Comprehensive data are not available for the study area but a survey in 1966/67 by the then Ministry of Social Security (see Table 18) suggests that average male earnings of residents in Huddersfield C. B. were below national but slightly above regional averages. Female earnings were slightly below the regional average but well below the national. However, these figures are based on a ½% unrated sample of national insurance cards which in Huddersfield means a sample of only 350. The possibility of sampling errors must therefore be very high and it is possible that average incomes in Huddersfield C. B. are not representative of the study area as a whole.

TABLE 18. AVERAGE EARNINGS, 1966/67

Area	Average Earnings			
	Males		Females	
	£. per annum	Index G. B. =100	£. per annum	Index G. B. =100
Huddersfield C. B.	1,073	96	520	90
Yorkshire and Humberside	1,049	94	535	93
Great Britain	1,120	100	576	100

89. A rather different picture is shown by a broad assessment of local male earnings in manufacturing industry which has been made by using the regional figures of average weekly earnings of adult male manual workers in individual industries. Table 19 shows the proportions of males employed in 1967 in manufacturing industries in which average earnings in April 1968 were respectively above and below the average for all manufacturing industries in the Yorkshire and Humberside region.

TABLE 19. AVERAGE WEEKLY EARNINGS OF ADULT MALE MANUAL WORKERS, APRIL 1968

Males employed in manufacturing industries where the average earnings for male manual workers are:-	Percentage	
	Study Area	Yorkshire and Humberside
(a) above the regional average:		
40/- or more above	-	16
30/- or more above but less than 40/-	2	4
20/- " " " " " " 30/-	13	5
10/- " " " " " " 20/-	2	8
Less than 10/- above	-	8
TOTAL	17	41
(b) below the regional average:		
Less than 10/- below	24	20
10/- or more below but less than 20/-	20	12
20/- " " " " " " 30/-	6	11
30/- " " " " " " 40/-	33	12
40/- " " "	-	4
TOTAL	83	59

Note: In preparing this Table, figures were extracted for every manufacturing industry (MLH) in which the proportion of male employees was one per cent or more of the total male employees in manufacturing industry. For the remaining, less well represented industries, figures were extracted by industry order groups - care being taken to ensure that there was no significant distortion of group average earnings by previous extractions in respect of the larger industries.

90. This table shows that 83% of males in manufacturing in the study area were in lower paid industries compared with 59% regionally. These broad comparisons tend to suggest that average male earnings in the area were less than those in the region (425/8d. per week), which were themselves well below the national average of 456/6d.

91. However, this analysis assumes that the local level of earnings in each industry is the same as in the region as a whole and that the earnings of non-manual workers bear the same relationship to the regional mean as do those of manual workers. Either, or

both, of these assumptions may of course be invalid. The existence of a local labour shortage which is more acute than that in the region as a whole may result in a bidding-up of local wage rates. In the case of wool textiles, this wage competition combined with the nature of the local industry in which the production of high grade woollen and worsted cloths predominates, probably means that the study area's position is more favourable than would appear from the table. Enquiries made of the industry in Huddersfield suggest that earnings are a little higher than the regional average for the industry (390/2d). Nevertheless this does not substantially alter the general picture of earnings in the study area below the regional average.

92. It seems probable that the overall situation in the study area lies somewhere between the two rather different positions shown by these two sets of data and that earnings, both male and female, are slightly below regional and well below national averages. It must be emphasised that these figures relate to earnings by individuals and not by households. The relative pattern of household earnings is affected by activity rates, which in the study area are higher than the regional and national averages.

INDUSTRIAL RELATIONS

93. Industrial relations in the study area are generally regarded as satisfactory. The position is particularly good in wool textiles where close working relations between employers' associations and trades unions and a readiness to respect and apply the long established disputes procedure have been instrumental in fostering industrial harmony. Co-operation between employers and trades unions is illustrated by the training of a full-time union officer in work study at the Employers' Association Management Centre. In engineering there have been a number of stoppages in support of wage claims, but these have been in line with the situation in the industry regionally and nationally.

FUTURE EMPLOYMENT SITUATION

94. This section outlines the likely relationship between labour supply and demand in the study area in 1971 and 1975, based on certain assumptions. On the demand side a high level of business activity, roughly similar to that in 1966, has been assumed in 1971 and 1975. In addition, the forecasts are based on existing regional policies at the time of writing, i. e. before the publication of the report of the Hunt Committee. For the labour supply estimates assumptions have been made about population changes, activity rates and travel-to-work. The estimates are subject to a considerable margin of error and a range of forecasts has therefore been prepared. The forecasting of changes for small areas such as this is particularly hazardous, and an outline of the methods used and of the inherent difficulties is given in Appendix F.

95. Differences revealed between estimates of supply and demand for future years should not be interpreted as a measure of unemployment or labour shortage at the forecast dates, since labour supply and demand will always tend to adjust to each other. Adjustment can come about through changes in activity rates, migration, local changes in the pattern of journeys to work, productivity and hours of work. A deficiency in demand may, for example, be reflected in lower activity rates and more outward migration. Similarly, a shortage of labour may lead to higher productivity and/or higher activity rates while more people than expected may migrate into the area.

96. In Chapter 3 it was forecast that the effective supply of labour is likely to fall by between 300 and 2,600 in the period 1966 to 1971, and by a further 2,100 to 2,600 by 1975, with females accounting for the greater part of the decline. Labour demand, on the other hand, is expected to change very little between 1966 and 1971 - within the range - 1,000 to +1,000. Female demand is expected to be slightly higher and male demand slightly lower. By 1975, however, a fall in demand of between 2,000 and 4,000 is anticipated, split equally between males and females. As regards individual industries, the contraction of textile employment seems likely to continue at much the same rate as in the recent past, although forecasts of the effects of improvements in productivity are particularly difficult to make. Other industries, including coalmining, chemicals, clothing and transport and communication, are expected to show small decreases in employment. On the other hand, increases are expected in engineering and metal goods, vehicles, education and health services and public administration.

97. The forecasts of the effective supply of and demand for labour are brought together in Table 20. This shows that by 1971 the likely position will range between a shortage of 1,000 jobs and a surplus of 4,000 jobs (between -2,000 and +1,000 for males and +1,000 and +3,000 for females). Although forecasting for 1975 is more speculative, the position is likely to be little different, ranging between a 1,000 shortage and a 3,000 surplus of jobs (between -1,000 and +1,000 for males and between nil and +2,000 for females).

98. The general conclusion which emerges, therefore, is that overall labour supply will probably fall steadily up to 1975. Total labour demand, however, is not expected to fall before 1971, and in the succeeding four years its decline should not be much faster than in the case of labour supply. The persistent shortage of female labour is likely to continue throughout the period to 1975, but the supply of and demand for male labour is likely to be broadly in balance.

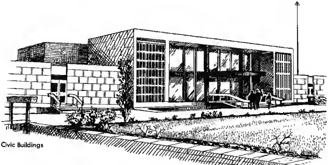

Civic Buildings

TABLE 20. ESTIMATED SUPPLY OF AND DEMAND FOR LABOUR IN 1971 AND 1975

Thousands

	1971			1975		
	Males	Females	Total	Males	Females	Total
Labour Demand	60.0 to 61.0	36.0 to 37.0	96.0 to 98.0	59.0 to 60.0	34.0 to 35.0	93.0 to 95.0
Effective Labour Supply	60.0 to 62.0	34.0 to 35.0	94.0 to 97.0	59.0 to 60.0	33.0 to 34.0	92.0 to 94.0
Likely range of surplus or shortage of jobs.	-2.0 to +1.0	+1.0 to +3.0	-1.0 to +4.0	-1.0 to +1.0	- to +2.0	-1.0 to +3.0

Note: For commentary see text and Appendix F.

5. INFRASTRUCTURE

99. The purpose of this chapter is to examine the condition of the area's infrastructure - its buildings and land available for development, town centres, urban structure and public utilities. Schools and hospitals, though significant elements in the local infrastructure, are discussed with education and health services generally in Chapter 6.

HOUSING

CONDITION OF THE HOUSING STOCK

100. The rapid development of industry and population in the 19th century has left the legacy of a large number of houses of poor quality by present day standards. No generally accepted standard exists for measuring the condition of housing but evidence from a number of sources - covering structural condition and type of amenities provided - shows the high proportion of sub-standard housing. The numbers of houses which on the criteria discussed below are likely to be unsatisfactory are shown in Table 21.

101. Standards prescribed in the Housing Act of 1957, which are mainly concerned with the physical condition of the structure, are the official criteria for determining whether dwellings are unfit. In 1965 about 5,400 houses, representing 7% of the study area's total housing stock, were considered to be "unfit" by the local authorities. This proportion is less than that of the region and is only slightly higher than that in the country as a whole. But these estimates give a very incomplete reflection of the extent of sub-standard housing, and comparisons with other parts of the country tend to be misleading since each local authority made its own assessment which, in the absence of precisely defined standards, tended to be based essentially on its own short-term priorities. This meant that widely different standards were applied in different areas. A considerable number of these "unfit" dwellings are probably back-to-back houses which are a particular feature of the industrial areas of the West Riding. According to a recent survey by the Ministry of Housing and Local Government there were about 6,300 back-to-back houses in the study area (excluding Holmfirth U.D.) in 1967 representing some 9% of the existing stock of housing. A previous survey showed that there were about 7,700 of these houses in the same area in 1954, which indicates that less than 20% have been cleared in thirteen years.

102. The Inland Revenue's assessment of the rateable value of a house provides a broad measure of its quality because it reflects not only the size and structural condition of the house and its equipment but also its environment. Even though rating assessments for similar properties tend to vary in different parts of the country, the large variations between the study area and the country as a whole cannot be explained by this factor alone. The average rateable value of all dwellings in the study area in 1968 was only £37 compared with the average for England and Wales of £71. Nearly half (35,000) of all the dwellings had a rateable value not exceeding £30 per year compared with less than a third regionally and only 15% for England and Wales. It should be noted that some dwellings with a rateable value of £30 or less have been built in the study area since 1945.

103. The Census records the numbers of dwellings which lack certain basic facilities. As regards fixed baths and water closets in the house, the study area was considerably worse off in 1966 than either the region or the country as a whole. The situation in respect of hot water supplies is similar to that of the region and England and Wales.

104. These last two criteria - dwellings with low rateable value and dwellings without certain facilities - probably over-emphasise the extent of sub-standard housing since some dwellings included in these categories are in fair condition. However, it is probable that, in an urban area at any rate, many either have or may soon become unfit for habitation unless improved.

105. Although age is not entirely reliable as a guide to the quality of housing stock, it is probable that a high proportion of the old houses in the study area is sub-standard. According to a survey by the local planning authorities, details from which are shown in Appendix G.2, about half (37,000) of the houses in the study area were built before 1914 compared with only 41% for England and Wales. On the other hand, only 23% of the housing stock has been built since 1945 compared with 32% in both the region and the country as a whole.

TABLE 21: HOUSING CONDITIONS

Area	"Unfit" dwellings as at 1st Quarter 1965		Dwellings with Rateable Value not exceeding £30 at April 1968		Households lacking certain facilities, 1966					
					Hot wster tap		Fixed bath		Water closet	
	No. ('000)	%	No. ('000)	%	No. ('000)	%	No. ('000)	%	No. ('000)	%
Study Area	5.4	7.3	35.2	47.7	8.7	12.1	16.9	23.6	1.9	2.7
Yorkshire and Humberside	137.4	8.7	230.8	29.8	172.9	11.2	270.9	17.5	25.2	1.6
England and Wales	823.7	5.5	2,234.0	14.6	1,925.9	12.5	2,295.7	15.0	274.3	1.8
Saddleworth U.D.	0.4	4.9	3.5	49.0	0.8	11.3	1.3	19.5	0.3	5.0

Note: Data on individual local authority areas are given in Appendix G.

106. There is a localised problem of overcrowding in Huddersfield, mostly among Commonwealth immigrants living in areas of terrace housing just west of the town centre. The local housing authority has made a start with re-housing Commonwealth immigrants but progress has so far been slow. The need for greater speed in re-housing will be enhanced with the next stage of the construction of the Inner Ring Road, involving the demolition of nearly 100 houses, some of which are occupied at high densities by Commonwealth immigrants.

107. Figure 8 and Appendix G give details of the variations in the quality of houses between different local authority areas. The worst conditions are to be found in Colne Valley U.D. and Huddersfield C.B.

IMPROVEMENTS

108. Some indication of the effort recently devoted to the improvement of older housing can be seen from information about improvement grants made by the local authorities under the Housing Acts. The annual number of grants in the period 1962-67 expressed

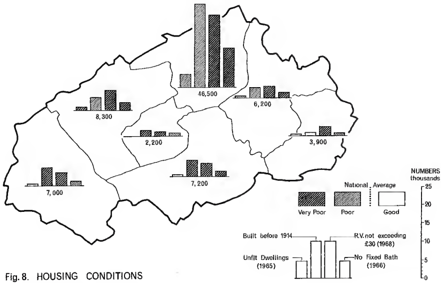


Fig. 8. HOUSING CONDITIONS

The height of the bars is proportional to the number of dwellings in each category. The shading shows the condition in relation to the national average. The number of dwellings in each Local Authority in 1967 is given.

as a percentage of the number of houses of rateable value of £30 or less is only 1.1% in the study area as against 2.3% in the region. At this rate of progress there is a great danger of an increasing number of houses falling into an "unfit" condition.

109. No improvement areas have so far been declared by the local authorities in the study area but schemes are being prepared. The recent White Paper "Old Houses into New Homes" (Cmnd. 3602) points to the need for a greater emphasis within the public housing programme on the improvement of older houses; the powers proposed, including the declaration of General Improvement Areas in which the improvement effort should be concentrated, will be of great assistance to places like the study area with a high proportion of sub-standard housing.

RECENT HOUSING PROGRESS

110. As might be expected in an area of slow population growth, the rate of both public and private house building per head of population between 1961 and 1967 has been below both regional and national rates. Table 22 shows that the rate of local authority building has been only half the regional rate. Taking into account the extent of the replacement problem an above average rate might have been expected. More encouraging is the progress of private enterprise building which has been only slightly below regional and national rates. The table also shows that the highest completion rates per 100 population have taken place in Denby Dale U.D. and Meltham U.D. due mainly to private enterprise building. Huddersfield C.B. and Colne Valley U.D. have the lowest rates with both local authority and private building below national and regional averages.

TABLE 22: NEW DWELLINGS COMPLETED PER 100 POPULATION, 1961-67

Area	Total	Local Authority	Private Enterprise
Huddersfield C.B.	2.9	1.0	1.9
Colne Valley U.D.	3.0	1.0	2.0
Denby Dale U.D.	7.7	3.3	4.4
Holmfirth U.D.	3.9	0.7	3.2
Kirkburton U.D.	3.9	0.2	3.7
Meltham U.D.	5.5	1.1	4.4
Total Study Area	3.3	1.0	2.3
Saddleworth U.D.	6.8	0.5	6.3
Yorkshire and Humberside	4.7	2.1	2.6
England and Wales	3.8	1.3	2.5

111. Examination of recent progress in housing construction and demolition of unfit dwellings in Table 23, shows that the number of local authority houses built for all purposes was substantially less than the number of unfit houses demolished. In 1967 local authority housing completions exceeded demolitions, but this was as much due to a fall in demolitions as to the rise in the local authority house building programme which had taken place since 1964.

TABLE 23. HOUSING COMPLETIONS AND DEMOLITIONS, 1961-67

Area	Houses Completed			Houses Demolished or closed	Net additions to Housing Stock
	Local Authority	Private Enterprise	Total		
Huddersfield C. B.	1, 298	2, 507	3, 805	2, 314	1, 491
Colne Valley U. D.	206	415	621	215	406
Denby Dale U. D.	316	427	743	170	573
Holmfirth U. D.	136	599	735	102	633
Kirkburton U. D.	42	693	735	252	483
Meltham U. D.	64	252	316	34	282
Study Area	2, 062	4, 893	6, 955	3, 087	3, 958
Saddleworth U. D.	89	1, 126	1, 215	74	1, 141

FUTURE HOUSING REQUIREMENTS, 1967-81

112. New houses will he required, first to overcome existing housing shortages, secondly to replace dwellings which do not meet modern living standards and which cannot he improved at reasonable cost, and thirdly to provide for any additional population.

113. First, shortages of houses can arise because in any area there are usually a number of "potential" households. These are made up of people who, for social or economic reasons have no house of their own. Some provision should he made for these although it would he unrealistic to assume that all would want their own home. A little information on the extent of this "hidden" shortage is available in the Census which shows that nearly 2, 000 households were living in shared dwellings in 1966 and over 1, 000 households were living at densities of over 1½ persons per room (the official definition of overcrowding). Any estimate is necessarily very much a guess but, allowing that a proportion of the households sharing dwellings do so voluntarily, it is assumed that about 1, 500 extra dwellings could he required to overcome this problem.

114. Secondly, houses will be required to replace sub-standard dwellings. The 5, 400 dwellings which were statutorily unfit in 1965 (para. 101) can only he taken as a lower estimate of the problem, and at recent rates of demolition it would he 1979 before even these dwellings were cleared. At the other end of the scale there are 37, 000 houses which were built before 1914 (para. 105), a figure very close to the 35, 000 dwellings which have rateable values of £30 or less (para. 102). The majority of these will need to be replaced by the end of the century and, assuming an even rate of demolition, about 15, 000 dwellings should be replaced by 1981. This has been taken as a very reasonable higher (but certainly not a maximum) estimate of the need for replacement by that date. This would involve, however, a doubling of the recent rate of demolition.

115. Thirdly, an additional number of houses will he required to cater for the increased population expected in the study area. In Chapter 3 it was estimated that the population could increase from its present 207, 000 to 224, 000 in 1981 if the whole of the projected natural increase is retained. On the other hand, if net outward migration continues at

the level of the recent past, the population in 1981 might be 219,000. On this basis estimates have been made of the numbers of potential households in 1981; depending on whether net outward migration continues or is arrested, it is estimated that between 2,400 and 4,300 new houses will be required for this purpose.

116. To summarise, the housing requirements to 1981 could be:-

(a) to overcome existing shortages - 1,500 dwellings;

(b) to replace existing sub-standard houses - between 5,400 and 15,000 dwellings;

(c) to provide for additional population - between 2,400 and 4,300 dwellings.

The total requirement could therefore be between 9,000 and 21,000 new dwellings. The building rate since 1961 has averaged about 1,000 dwellings per year; a continuation of this rate would satisfy the lower requirement but not the higher. No allowance has been made either for houses demolished for "planning reasons" - road improvements etc. - or for an increase in the number of vacant dwellings. In 1966, vacant dwellings comprised 3.3% of the total housing stock compared with regional and England and Wales averages of 3.0% and 3.1% respectively. Nor has any attempt been made to apportion this building requirement between public and private developers, although in practice clearance and replacement is carried out almost entirely by local authorities.

117. In addition to the construction of new houses there will be a need to improve many of the older dwellings which will remain beyond 1981. It is estimated that between 18,000 and 20,000 houses in the study area could be improved to give a longer life.

SUPPLY OF HOUSING LAND

118. As part of a region-wide survey of housing requirements and land availability being conducted by the Ministry of Housing and Local Government, the local planning authorities estimate that over 1,500 acres of land allocated for residential development in the study area remained undeveloped in 1966. All of this land is excluded from the green belt. A little over half of the land is in Huddersfield C.B. The local planning authorities estimate that this land could accommodate about 15,000 houses. Further land will become available as older areas are cleared for redevelopment. If we assume that in all clearance areas half the number of houses demolished are replaced on the site, then the capacity of this land based on the clearance estimates set out in the previous paragraph would be between 2,800 and 7,500 dwellings. Assuming even the higher estimate of replacement, the total capacity of available land - 22,500 dwellings - is therefore sufficient to accommodate all the dwellings required in the study area by 1981. In addition to this it is estimated that some 1,500 acres of "white" land (i.e. land which is neither allocated for development nor included in the green belt) is suitable for housing. In certain places such as Meltham, however, where the supply of allocated land is small, there may be pressures for land to be released for development at an early stage.

119. The main type of factory building in the area is the textile mill (see sketch on page 52). Almost all were built during the middle or latter half of the 19th century, usually four or even five storeys high because of the need to obtain as much floor space as possible from small cramped sites on the river banks. Constructed of local stone, a typical mill has relatively low ceilings and wooden floors supported by pillars at frequent intervals to carry the heavy machinery. Its structure, therefore, causes problems of lighting, ventilation, overcrowding and noise. Although in many cases working conditions have improved in recent years, in general they leave something to be desired judged by modern standards.

120. Not all these mills are now occupied by textile firms. With the reduction in the number of textile establishments a number of mills have come on to the market and a few are occupied by engineering firms or used as warehouses. But they are difficult to adapt - their multi-storey structure is not suitable for modern flow-line production, the floor supports restrict the effective floor area and the height causes problems with the handling of materials. Moreover, their riverside sites often provide little or no room for expansion. A number of them therefore remain empty for long periods even though they are useful for enterprises in their early stages of development seeking cheap premises.

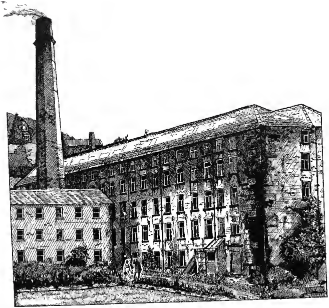
121. The chemical industry occupies a very large area of land along the valley on the north eastern side of Huddersfield, much of it taken up with specialised plant rather than buildings. Working conditions are variable. Although well provided with facilities the nature of the job means that some men work in unpleasant and exposed conditions. However, chemical plant has a limited life and its continuous replacement provides opportunities to incorporate methods of automation and mechanical handling.

122. Apart from the chemical sites, there are no really extensive industrial sites in the area. Huddersfield's other main industry - engineering - is spread throughout the area and two of its largest firms occupy a number of separate factories including a few former textile mills both within the study area and elsewhere. Although working conditions again vary considerably, they are generally satisfactory.

123. Recent investment in new industrial buildings has been at a very low level, no doubt partly due to the availability of cheap old mill premises. In the period from 1st January, 1953 to the 30th June, 1967 a total of 1.69 m. sq. ft. of new buildings and extensions requiring Industrial Development Certificates were completed. Related to the total number of employees in manufacturing industry in the area this gives an index of only 44 compared with 94 for Yorkshire and Humberside (G.B. = 100).

124. Because of the nature of the topography very little undeveloped industrial land is available in the study area. The land availability survey carried out by the Ministry of Housing and Local Government showed that of the 130 acres of land available for industry in Huddersfield C.B. in mid 1966, only 21 acres were immediately available, the rest being dependent on road proposals or slum clearance. Moreover, the sites are generally small with the largest sites owned by existing firms for their own use. In the remainder of the study area some 124 acres are available for industry in several relatively small sites.

125. Although demand for new sites appears to be small at present the shortage is seen as a disadvantage by a number of firms in the area. Of 67 firms who provided information about the adequacy of their sites, 53 indicated that they are adequate for their



purposes but 14 indicated some inadequacy. In response to the general question concerning the main disadvantages of their locations 18 of the 67 firms mentioned site difficulties which limit the scope for expansion.

TOWN CENTRES

126. In Chapter 1 it was stated that, because of easy accessibility to Bradford, Leeds and Manchester, the study area is able to use services provided at these important centres. Within the study area itself, Huddersfield is clearly the dominant service centre. In a recent study* Huddersfield is shown as the third most important centre in the West Yorkshire conurbation after Leeds and Bradford. Other centres in the study area are very small, catering for the daily needs of their local populations. The relative importance of Huddersfield as a service centre within the study area is illustrated in Table 24.

TABLE 24. DISTRIBUTION OF RATEABLE VALUES OF SHOPS AND OFFICES WITHIN THE STUDY AREA, 1968

Area	Shops		Commercial Offices	
	R. V. (£'000)	%	R. V. (£'000)	%
Study Area	504.0	100.0	102.8	100.0
Huddersfield C. B.	459.8	91.1	99.2	96.4
Colne Valley U. D.	13.9	2.8	1.0	1.0
Holmfirth U. D.	12.9	2.6	0.8	0.8
Kirkburton U. D.	8.2	1.6	0.6	0.6
Denby Dale U. D.	6.1	1.2	0.6	0.6
Meltham U. D.	3.1	0.7	0.6	0.6

127. A major redevelopment scheme is in process of completion in the southern part of the central area of Huddersfield abutting the new Inner Ring Road which is partially completed. The scheme includes new Civic Offices and a Market Hall as well as shops and commercial offices. It is estimated that the implementation of proposals already approved would involve an increase of about 30% on the shopping floorspace existing in 1961. This is expected to be adequate at least for the period up to 1981. It is not at present envisaged that the northern part of the central area will be redeveloped in this period. It would seem therefore, that in terms of physical space Huddersfield's central area has considerable room for expansion within the confines of the Inner Ring Road, should that be necessary.

---

*"The Changing Urban Hierarchy" by R.D.P. Smith, in Regional Studies, Volume 2, No. 1, September 1968.

28. Traffic congestion is a problem at present in the centre of Huddersfield and on some of its approaches, particularly at the junctions of the Inner Ring Road with Wakefield Road and Manchester Road. But the completion of the Lancashire-Yorkshire motorway (M.62) and of the Inner Ring Road together with other road proposals in the Ministry of Transport programme and under consideration should have the effect of removing a great deal of traffic from the central area and also of improving accessibility to the centre. Road improvements are considered in more detail in the next section.

URBAN FORM

129. The purpose of this section is to analyse the distribution of the area's main traffic-generating land-uses in relation to the transport system and land available for development, and to assess the potential of this structure for further development. It is not concerned with making an urban structure plan which is the responsibility of the local planning authorities.

130. The pattern of urban development has been strongly influenced by topography and the disposition of the water and coal resources originally required by the wool textile industry. Following the valleys, the settlement pattern of the area is a radial one centred on Huddersfield. Located at the junction of the Rivers Colne and Holme, Huddersfield has a relatively open site with a markedly radial main road pattern. The land use pattern in the town, however, has one well developed linear feature in that most of the industrial land is situated along the river and canal banks. This, together with the town centre, forms a broad north-east/south-west band across the town. Although other industrial sites are scattered along the valleys throughout the study area, they tend to be much smaller in terms of land use and employment.

131. Within a basically radial pattern, therefore, there is a strong linear element in the disposition of those land uses which generate heavy traffic flows and a concentration of such uses within Huddersfield itself. The concentration of the major land uses generating employment within Huddersfield is reflected in the pattern of journey to work movements in Figure 4. The distribution of major land uses is shown in Figure 9 together with the roads that are used as bus routes; the main road and rail network is shown in Figure 2.

THE ROAD NETWORK

132. Ideally, a radial pattern of development and a concentration of employment and services at the centre should entail a high degree of accessibility to town centre facilities. In practice, however, circulation is often frustrated by congestion due to over-loading of the central area, particularly, as in Huddersfield, where inter-urban traffic (much of it heavy industrial traffic) is forced to pass through the central area of the town. In Chapter 2 and para. 128 it was noted that congestion occurs mainly on the A.62 in the Colne Valley and through the built-up area of Huddersfield and at the Wakefield and Manchester Road junctions with the Inner Ring Road.

133. Traffic conditions both within the town centre and on some of the main radials will be considerably improved by the completion of road schemes in the Ministry of Transport's programme and under consideration. The M.62 will closely follow the northern boundary of the study area with junctions at Outlane (with A.640), at

Ainley Top (with A. 629) and at Clifton (with A. 644). The motorway will have a marked effect on local traffic and environmental conditions, for example by removing an estimated 50% of the traffic on A. 62 in the Colne Valley and Huddersfield.

134. Apart from the M. 62, six major improvements are proposed in Huddersfield C. B. at an estimated cost of about £9m:-

(i) improvement of New Hey Road (A. 640) between Huddersfield and the motorway interchange at Outlane - programmed to start in 1968/69;

(ii) Inner Ring Road (Western Section) - programmed to start in 1969/70, this will finish the circuit of the town centre which is already complete on the south and east sides between Manchester Road and Leeds Road;

(iii) improvement of Bradford Road (A. 641) between Fartown Bar and Longhill Road - programmed to start in 1968/69;

(iv) improvement of Halifax Road (A. 629) between Huddersfield and the motorway interchange at Ainley Top - not yet in the programme;

(v) Longroyd Freeway; this would parallel the existing inner ring road on the south and east sides of the town centre from Manchester Road to Leeds Road but would be further out - not yet in the programme;

(vi) Leeds Road Freeway; this would be continuous with the Longroyd Freeway and extend as far as a new link road from Colne Bridge to the motorway interchange at Clifton - not yet in the programme.

No other major road improvements are at present programmed in the study area, but consideration will no doubt be given to improvement of the Huddersfield-Barnsley road (A. 642/A. 637), which provides the shortest route from Huddersfield to the M. 1 for southbound traffic.

135. By easing congestion in the town centre these improvements will make it possible to exploit further the advantage of accessibility inherent in the area's physical structure. At the same time the implementation of these schemes will afford relief to certain parts of the road network outside the town centre, creating the opportunity for urban growth. Information available to us at present suggests that within the County Borough itself, where about half the land allocated or with planning permission for residential development in the study area is located, the area most suitable for development on traffic grounds lies in the northern part of the town. Three of the northern radials, which will connect the town centre with the motorway, will provide adequate communications in both directions and it will be possible to reach the motorway from the northern part of the town without going through the town centre. It is in the northern part of the town that a large area of the suitable land is located. (In this context "available land" includes land which was allocated for development but which was still unused in mid-1966, or land with planning permission for residential development and "white" land which may be considered suitable for development.) Some relief will also be afforded in the south following the construction of the Longroyd Freeway, facilitating the development of attractive land in the south. Outside the County Borough there will, at least in the short and medium term, be more room on the A. 62 in the Colne Valley following the transfer of traffic to the motorway, and some land is available here. But both the Holme Valley route (A. 616) and the Huddersfield-Kirkburton-Denby Dale route (A. 629/A. 635), where land is available, are likely to be theoretically overloaded. It is possible, however, that any development in the Denby Dale area might look to Wakefield as well as to Huddersfield.

THE PUBLIC TRANSPORT SYSTEM

136. Figure 9 shows that the pattern of bus services in the area, like the road network, s a radial one based on Huddersfield. Figure 9 also shows that the coverage of the study area is very comprehensive, although the frequency of services is not shown. The most heavily trafficked routes outside the County Borough are along the valleys, such as the ones to Slaithwaite and Holmfirth, and the inter-urban routes such as those to Bradford and Halifax.

137. The main feature of bus operation in the area is the linear form of development imposed by the valleys radiating from Huddersfield, which is of considerable advantage to the operator since it favours high density services which can get within walking distance of both homes and workplaces. The concentration of workplaces also facilitates the operation of public transport, but the fact that this concentration is mainly in the centre of Huddersfield does have the disadvantage of involving empty running against the peak flows - partly offset, however, by the fact that there is some regular traffic against the main flows (e.g. between Slaithwaite and Marsden and between Huddersfield and the chemical works at Dalton).

138. The importance of bus transport can be assessed from Table 25 which shows that in the study area as a whole nearly half of all work journeys in 1966 were by bus.

TABLE 25. TRAVEL TO WORK BY MODE OF TRANSPORT, 1966
(TOTAL PERSONS WORKING IN THE AREA)

Persons working in:-	Means of Transport (%)					
	Train	Bus	Car	Pedal Cycle	On foot	Other
Huddersfield C. B.	0.7	51.1	22.1	0.9	18.5	6.7
Colne Valley U. D.	0.4	33.9	12.2	0.4	43.0	10.1
Denby Dale U. D.	0.4	37.1	18.0	2.0	26.8	15.5
Holmfirth U. D.	0.3	32.9	22.6	0.9	32.1	11.2
Kirkburton U. D.	0.2	36.3	20.9	2.2	17.6	22.8
Meltham U. D.	-	35.8	25.9	-	26.3	11.9
Total Study Area	0.5	46.2	21.3	0.9	22.0	9.0

139. The table also illustrates the relative unimportance of the railway network in the total number of work journeys. Apart from the main line through Huddersfield and Colne Valley, which was discussed in Chapter 2, the only other railway line in the area is the branch line from Huddersfield to Clayton West and Penistone (see Figure 2); at Shepley the line divides, one branch going to Skelmanthorpe and Clayton West and the other to Denby Dale and Penistone. The line is the subject of an unremunerative service grant from the Minister of Transport (see para. 24); but this grant is to be reviewed during 1969. It carries a few commuters between Huddersfield and Sheffield, changing at Penistone on to the Manchester-Woodhead-Sheffield line, which is itself the subject of a proposal for the withdrawal of passenger services.

PRINCIPAL AREAS OF
WORKPLACE AND RESIDENCE
SHOWING BUS ROUTES

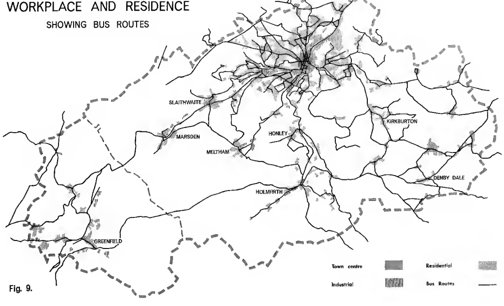


Fig. 9.

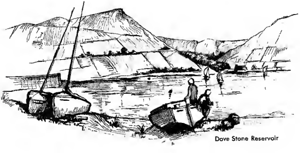
PUBLIC UTILITIES

140. The area is well served by gas and electricity supplies. The North Eastern Gas Board and the Yorkshire Electricity Board foresee no difficulties in making additional supplies available provided they are given reasonable notice of any developments within the area.

141. The area is served by two water undertakings; Huddersfield Corporation which supplies most of the area, and the Mid Calder Water Board which supplies Denby Dale U.D. and parts of Kirkburton U.D. as well as Dewsbury, Batley and Heckmondwike and provides bulk supplies to Barnsley and Wakefield water undertakings. The West Pennine Water Board, which serves Saddleworth and parts of the South-East Lancashire conurbation, also takes water from the impounding reservoirs on the moorland gathering grounds within the study area. Demand for Huddersfield Corporation's water already exceeds yield and a further source, Scammonden valley impounding reservoir, which is heing constructed as an integral part of the M.62 project (the road will run along the top of the dam), will come into its initial stage of operation in 1971. It was anticipated that together with existing sources this reservoir would meet demand up to 1985-90, but in 1967 demand exceeded the forecast for that year, and if this trend continues another source may have to he commissioned before then. The Mid Calder Water Board's supplies are unfiltered hut proposals are in hand for further treatment. It is anticipated that an additional source will be necessary by 1972-73 and the Board are investigating the possibility of damming Howden Dike at Winscarr.

142. There are many small sewerage treatment works within the area, most properties now having mains drainage. As some of the systems become overloaded they are being abandoned and sewage diverted to larger plants. New schemes are in hand for each local authority.

143. Waste disposal, both domestic and industrial, is complicated by the dispersed nature of the valley settlements. Only in Huddersfield C.B. is development sufficiently compact for efficient and economical collection and disposal. The disposal problem throughout the rest of the area is simplified by the frequent occurrence of small disused stone quarries. The consequent proliferation of small tips, each receiving minimal supervision, is regrettable but the system could only be improved at high cost.



Dove Stone Reservoir

6. ENVIRONMENT

144. The physical and social environment determines the living conditions of the people of the area; and since it affects the general attractiveness of the area as a place in which to live and work and may influence the attitudes of industrialists making investment decisions, it is also of economic significance.

THE URBAN ENVIRONMENT

145. Perhaps the most important aspect of the physical fabric affecting living conditions is the general quality of houses and their surroundings. The physical condition of the building stock was discussed in Chapter 5 as an element in the area's infrastructure; this section is concerned rather with the general appearance of the urban scene.

146. The pattern of urban environment in the study area was set during the 19th century. This has left a legacy of a number of buildings worthy of preservation, notably Huddersfield Railway Station (see sketch on page xii), which is regarded as one of the finest examples of Victorian railway architecture in Britain; together with the buildings adjacent to it in Railway Street and St. George's Square, it forms a group of buildings well worthy of preservation as a whole. This area has in fact been designated as a Conservation Area under Section 1 of the Civic Amenities Act, 1967. On the other hand, the 19th century has also left an environment which is in many ways unsatisfactory. The mixture of housing and industry, particularly in the valleys with their typical pattern of the mill surrounded by terrace houses, is by present standards often unsatisfactory. There are large areas of terrace houses; in Huddersfield itself many of these are back-to-back often laid out in a tight monotonous grid of streets unrelieved by any open space. Many buildings are dilapidated, in need of repair and repainting. The local stone, which is extensively used as a building material, at its best gives the buildings a distinctive character, but all too often takes on a very dark sombre appearance. On the other hand, there is on the south side of Huddersfield, for example, an extensive residential area in pleasant surroundings which provides a good standard of environment. Modern redevelopment is now adding a new element to the "townscape", especially in the centre of Huddersfield, where the new civic offices have recently been completed (see sketch on page 43).

THE COUNTRYSIDE AND OUTDOOR RECREATION

147. Fortunately, all but the most built-up areas benefit directly from an attractive landscape setting which forms one of the study area's greatest assets. Most of this countryside is very carefully protected by green belt policy against indiscriminate development. The well-wooded undulating landscape of the south-eastern parts of the study area offers a very pleasant residential environment, though the green belt means that sites for new houses there are limited. Moreover, the Pennines form an extensive area of open country of considerable recreational value within easy reach of the home. The northern section of the Peak District National Park forms (away from the roads at least) what might be termed a "wilderness" area which is of interest mainly to walkers and nature lovers. The Pennine Way, a long distance footpath stretching from Derbyshire to the Cheviots, passes through the western part of the study area. Some of the roads crossing the Pennines are much used by car drivers for pleasure trips. The policy of the Peak Park Planning Board is to concentrate future major recreational developments in the more scenically attractive southern parts of the Park, and the

provision of picnic spots and car parking facilities is the most likely development to be planned for the study area. The National Trust property of Marsden Moor comprises some 5,700 acres of open moorland. It stretches from Buckstones Moor on the north-western boundary of the study area to Wessenden Moor on the south-west (see Figure 10), the southern part being in the Peak District National Park.

148. There are some seventeen reservoirs in the moorland water catchment areas, some of which are used for sailing and fishing. These reservoirs, even those not at present available for recreational use, represent an important resource capable of further development. A good example of what can be achieved is the scheme carried out at Dove Stone Reservoir in Saddleworth by the Peak Park Planning Board (see Chapter 9 and sketch on page 58). A further potential resource, although in need of tidying up at present, is the waterways in the area. The Transport Act 1968 provides that the Huddersfield Broad Canal, from Aspley Basin near the centre of Huddersfield to its junction with the Calder and Hebble Navigation, shall be one of a number of cruising waterways, principally available for cruising, fishing and other recreational purposes.

149. The study area is well provided with golf courses. There are five 18 hole courses and two of 9 holes. Based on units of 9 holes, this gives the study area one such unit for every 15,000 persons compared with one to 23,000 persons regionally, and one to 26,000 nationally.

150. The most prominent local landmark is the stone look-out tower on Castle Hill to the south-east of Huddersfield. This 106 ft. high tower was built to commemorate Queen Victoria's Jubilee in 1897 and from its base there is a magnificent view of Huddersfield and surrounding districts.

CLIMATE

151. The study area has a climate typical of northern England in the lee of the Pennines. There are variations within the area but, in general, the climate deteriorates markedly from east to west. Average annual rainfall varies from about 40"-60" on the high Pennine moorlands to 30"-40" in Huddersfield and the lower-lying eastern parts of the study area (compared with the average for lowland England of 24"). Reflecting its position in the centre of Britain and its altitude, winter temperatures in Huddersfield sre rather below those of lowland England, but summer temperatures are only slightly below. Throughout the year the study area has significantly fewer hours of sunshine than the country as a whole. It receives an annual average of between 1,000 and 1,300 hours of bright sunshine compared with the national average of over 1,400 hours. Because of the configuration of the landscape and the extent of the built-up area, parts of the area are particularly prone to fog. Snowfall is more frequent and longer-lying than the national average, particularly at high levels and the valleys act as frost pockets. But perhaps the main feature of the local climate making it so uncomfortable is the frequency and persistence of high winds.

POLLUTION

152. The high density of industrial and other urban development in parts of the area, the configuration of the landscape, and the high incidence of fog combine to produce a high level of atmospheric pollution. Only one local authority area - Huddersfield C.B. is classified by the Ministry of Housing and Local Government as a "black area", but other parts, particularly the valleys, are also faced with the problem. The valley of

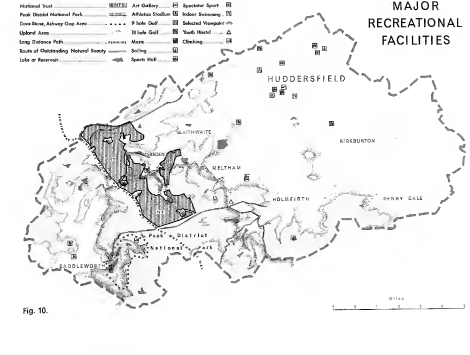

MAJOR RECREATIONAL FACILITIES
National Trust
Peak District National Park
Dove Stone, Ashway Gap Area
Upland Area
Long Distance Path
Route of Outstanding Natural Beauty
Lake or Reservoir
Art Gallery
Athletics Stadium
9 hole Golf
18 hole Golf
Music
Sailing
Sports Hall
Spectator Sport
Indoor Swimming
Selected Viewpoint
Youth Hostel
Climbing
PENNINE
PENNINE WAY
HUDDERSFIELD
SLAITHWAITE
MARSDEN
MELTHAM
KIRKBURTON
HOLMFIRTH
DENBY DALE
SADDLEWORTH
Peak District National Park
N.T.
Miles
0
1
2
3
4
5

Fig. 10.

the River Colne is particularly susceptible to persistent temperature inversions in winter. Chilled air draining into the valley from surrounding high ground forms a deep layer below which pollution is trapped.

153. Apart from its effects on the local climate, air pollution also affects health, agriculture and the general appearance of the environment. Buildings quickly become drab and there is a tendency for them to go uncared for and to deteriorate. Fortunately, there has been some improvement in recent years as a result of action under the Clean Air Act, 1956. In July 1968 some 34% of the premises in Huddersfield C.B. were covered by Smoke Control Orders. This compares with 41% and 46% of the premises in "black areas" in the region and England respectively. None of the other local authorities has implemented Smoke Control Orders.

154. The effectiveness of smoke control measures can be judged from Table 26 which gives data for two sites in Huddersfield, one of which has been controlled (Site A) and the other not (Site B). Both sites are in a similar type of environment and geographical setting with, before smoke control, similar levels of pollution. Following control, smoke levels in the uncontrolled site fell slightly but in the controlled site levels were reduced by approximately half.

TABLE 26. EFFECT OF SMOKE CONTROL ORDERS
(Smoke Control introduced October 1963)

Site	Average smoke content of the atmosphere (micrograms per cubic metre)	
	Before smoke control at Site A	After smoke control at Site A
Summer months:-		
Site A	84	37
Site B	109	98
Winter months:-		
Site A	249	135
Site B	259	220

155. So far as water pollution is concerned, the situation is improving. The condition of the River Colne in its upper and middle reaches is reasonable, and the river supports fish life. Action taken to eliminate the former intermittent pollution of the Langward Beck has been effective. There are prospects too of improving the badly polluted River Holme, as agreement has been reached on a comprehensive scheme for providing new sewage disposal facilities, including the treatment of trade effluent.

DERELICTION

156. The latest annual return of derelict land shows that about 461 acres or only 0.6% of the acreage of the study area is considered by the local authorities as "derelict". In terms of the loss of potentially developable land, dereliction on this scale has virtually no influence on the choice of sites for development. This does mean, however, that there is little incentive to a private developer to acquire and reclaim a derelict site and that the only prospect of action lies with the local authorities reclaim-

The authorities in fact consider that treatment is necessary in the case of about 68% of the total derelict acreage. Spoil heaps, of which there are some 115 acres in the study area, are seen as the most important problem - 84% of this area is considered to require treatment.

157. In terms of the environment, however, these statistics need to be treated with caution. The acreage measure often bears little relation to the visual impact of the dereliction and the official definition of derelict land ("land so damaged by industrial or other development that it is an eyesore and incapable of further use without special treatment") excludes a number of factors which contribute to the impression of dereliction. It would not, for example, include any land and buildings which are in use however dilapidated and unsightly they may be. Nevertheless it is clear that there are no large areas of spoil heaps, excavations or land subject to subsidence which create such serious environmental problems in the Yorkshire Coalfield. Moreover, the scale of the Pennine landscape is normally sufficient to absorb the numerous stone quarries and all but the largest spoil heaps. A notable exception is the waste tip at Grange Ash Colliery near Kirkburton. This is not in itself a particularly large tip, but owing to its situation on a skyline some 700 ft. above sea level it creates an obtrusive feature over a wide stretch of countryside, being visible for example from at least 6 miles range in the Wakefield direction.

EDUCATION SERVICES

158. Any assessment of the quality of education services provided in the study area must be to some extent subjective since the available statistics provide at best only a rough guide to a complex situation. In any case statistics are only readily available for Huddersfield C.B. These are summarised in Table 27.

159. So far as the condition of school accommodation is concerned, the School Building Survey of 1962 shows that Huddersfield was better off at that time than either the region or the country as a whole, and improvements have continued to be made since then. Recently, however, with the rise in school population, particularly of immigrant children, the shortage of buildings has become acute. The rise in the school population is likely to continue. A rough projection based on the 1966 Census age structure and assuming no migration after that date indicates that between 1966 and 1971 the primary school population might increase by 18% compared with only 11% in Yorkshire and Humberside and 13% in England and Wales. This projection is rough and may understate the future level of the primary school population, but it suffices to show that the problem may intensify.

160. There is a shortage of teachers in both primary and secondary schools. Many part-time teachers are employed including, in primary schools, some unqualified teachers awaiting entry into colleges of education, a practice, however, likely soon to be discontinued. More classes are oversize than regionally or nationally. In senior classes the situation is improving in line with national trends, but in junior classes the position has worsened in the past two or three years, probably associated with the influx of children of Commonwealth immigrants. In January 1968 immigrant children formed 11.4% of all children in maintained primary schools and 7.6% of the pupils in maintained secondary schools in Huddersfield C.B. For primary schools, this was by far the highest proportion of any local education authority area in the region. These proportions will undoubtedly continue to rise, imposing a considerable strain on the local education authority's policy of dispersing immigrant children between schools once they reach a number equal to a third of the school roll.

TABLE 27. EDUCATION SERVICES

Area	% of all pupils in schools affected by certain deficiencies in school buildings 1962	% of classes oversize 1966		Awards at universities made by local education authorities per '000 18 and 19 year olds Average 1962-67	Students entering colleges of education per '000 18 and 19 year olds Average 1962-67
		Junior Classes (over 40 pupils)	Senior Classes (over 30 pupils)		
Huddersfield C.B.	49	22	44	55.7	53.4
Yorkshire and Humberside	61(1)	n.a.	n.a.	42.6	44.4
England and Wales	58	12	38	44.7	36.7

Notes:- (1) Figure relates to East and West Ridings.
(2) n.a. = not available

161. Huddersfield has a long-standing tradition of further education, and this probably accounts for the excellent record the Borough has of sending pupils to universities and training colleges. The standard of vocational further education provided in Huddersfield is well above that which might be expected of a town of its size. Ramsden Technical College runs courses closely associated with the type of industry established in the area. The College of Technology, however, has established advanced and degree courses well beyond the needs of the town itself, and is included in the Department of Education and Science's first list of designated polytechnics. The scheme submitted to the Department by the local authority provides for the merger of the College of Technology with the Oastler College of Education and for considerable expansion of degree level work. The Oastler College runs a married women's course which recruits locally. The College of Education (Technical) whose purpose is to train teachers for technical colleges is one of only four such colleges in Britain.

HEALTH SERVICES

162. The planning of health services is based, wherever possible, on national targets for standards of provision; but for the purpose of the present study comparison with the current national situation is considered to be more relevant. In some parts of the region, however, these averages are not attained, often because of the difficulties of attracting staff to live in areas of poor environment. It is therefore gratifying that the level of provision of most services in the study area is up to national averages. The provision of health services, for which statistics are available, is summarised in Table 28. It must be emphasised that the comments made are based on statistical material which gives only a broad indication of local circumstances; in particular the significance of the bed as the unit for measuring the hospital provision required can be exaggerated.

TABLE 28. HEALTH SERVICES

	Provision of Hospital Beds per '000 Population (3) 1966	Patients per Doctor (4) at 1st October 1967	Population per Dentist 1967	Staff employed in Domiciliary Services per '000 Population 1965
Study Area	9.4	2,451 (2)	6,266	1.30 (2)
England and Wales	9.6 (1)	2,472	4,600	1.13

Notes:- (1) The national provision includes regional acute specialities which are based on regional centres serving a wider area and which are not present in the local figure.

(2) These figures relate only to Huddersfield C.B.

(3) For a detailed breakdown of these figures see Appendix H1.

(4) These figures relate to doctors providing full general medical services.

163. Hospital services for the area are centred at the new 508-bed hospital at Lindley and St. Luke's hospital where major re-development was completed in 1965. The mental illness service is based on Storthes Hall Hospital, Kirkburton, and St. Luke's Hospital. Storthes Hall also serves a wider catchment area including Halifax. For mental sub-normality, Huddersfield is at present part of an area based on Meanwood Park Hospital, Leeds, but will eventually be served by a new hospital to be provided at Wakefield. Table 28 and Appendix H1 set out the local and national rates of hospital bed provision in 1966. Subject to the reservations outlined earlier it would appear that the provision overall is satisfactory though there are differences as between individual services.

164. In relation to its population, Huddersfield C.B. is slightly better provided with doctors than the country as a whole. Huddersfield C.B. is one of the only three County Boroughs in the region classified as "open" (i.e. less under-doctored than designated areas) by the Medical Practices Committee as at 1st January, 1969. At 1st October, 1967 only some 17% of all doctors providing full general medical services in the Borough had lists of 3,000 patients and over compared with 28% regionally and 23% for England and Wales. Of the other local authorities in the area only Colne Valley is "designated" as under-doctored. For dentists, the study area as a whole seems to suffer from some shortage.

165. Assessed on a purely statistical basis, Huddersfield C.B. is generally well served as regards local authority provided health and welfare services. For domiciliary services taken as a whole, Huddersfield is better staffed than average which is very satisfactory when set against a provision of hospital beds which is generally up to recommended standards, though it should be noted that this is mainly due to a very high provision of home helps in relation to a near average provision of trained domiciliary workers.

COMMUNITY LIFE

166. Gradual growth during the present century, a stable employment situation and the Victorian tradition have contributed to moulding a strong community. Though many of the small towns and villages which focus on Huddersfield are self-contained in many ways, they nevertheless have common links of employment, outlook, associations and dialect which give the area a considerable degree of social coherence.

167. The heavy dependence of the local community on manufacturing industry has resulted in a predominance of manual workers in the labour force with common outlooks and characteristic types of community organisation. The tradition of the family business has in the past led to a strong social stratification between employers and employees. From this sprang the Working Men's Clubs which are still very active in the area. There is also a strong nonconformist tradition.

168. With increased mobility, declining textile employment and the arrival of Commonwealth immigrants, the local community is now at a transitional stage. So far immigrant communities have tended to be self-contained, but in future, as their cultural and financial ties with their homelands loosen, and as the children grow up in English society, they are bound to play a more important role in the life of the town.

169. Formal social institutions in the area cover a wide range of activities. Music has always played a large part in the cultural life of the area. The Huddersfield Choral Society (founded 1836) is of international repute and the Glee and Madrigal Society (founded 1875) is known nationally through broadcasting. Orchestras of international standing perform annually in Huddersfield. Brass bands are a strong feature throughout the area. Although there are about 100 amateur dramatic societies in the area there is no theatre. Sporting clubs include crown green bowling, Rugby League, Association Football and cricket, and are very popular both for their sporting and social functions. Huddersfield, on the other hand, lacks some of the more commercial forms of entertainment, such as ten pin bowling alleys, rinks for ice and roller skating and modern dance halls, and for these, young people particularly go to Leeds, Manchester and Bradford. Young people, however, should benefit from the new Sports Centre incorporating a 25 metre swimming pool which is planned in Huddersfield at a total cost of about £700, 000.

170. Although it is not possible to assess its economic significance there can be no doubt that the strong local community life and well developed social institutions are important social assets. Some indication of their value can be seen by comparison with the problems encountered in developing a satisfactory community life in many new towns in recent years.

Weavers Cottage

7. SUMMARY

171. Most of the report has been devoted to an analysis of the economic, physical and social features of the study area which bear upon its future development. A summary of the findings for each feature examined is now given together with an assessment of its significance, i.e. whether it represents an economic advantage or disadvantage. These assessments are made in accordance with a simple scale, viz:-

1. high
2. medium-high
3. medium
4. medium-low
5. low.

Each feature is briefly summarised with reference back to the appropriate passage in previous chapters. The resulting assessments are brought together in Table 29.

172. In some cases it would be possible to rank particular items in a more precise way, but since the object is to bring together as many factors as possible on to a common basis, it is necessary to keep to a uniformly simple scale. No attempt is made to weight the various assessments, although it is clear that some factors are far more important than others. This question is considered in Chapter 8 which also takes into account the inter-relationships between the factors. Where appropriate, assessments are related to a national average, because it is within a national rather than a regional context that some of the most significant economic decisions are taken, e.g. the industrialist determining the location of his investment in fixed capital.

A - HUMAN RESOURCES

1. TYPES OF LABOUR AVAILABLE (paras. 46-52)

(a) Age structure (para. 47)

173. The study area has an above average proportion of older workers, both men and women.

Assessment: medium-low

(b) Health (para. 48)

174. Absence from work through ill-health is considerably less than in the country as a whole.

Assessment: medium-high

(c) School- leaving age (paras. 49-50)

175. For both males and females, the proportion of the adult population who had received full-time education until the age of 17 or more was very low compared with the

national average. The proportion of pupils staying on at school beyond the statutory leaving age has been well below the national average in recent years.

Assessment: low

(d) Training (paras. 51-52)

176. Training facilities of all types in the area are generally good and compare well with other areas of similar size. These facilities probably offset the effects of early school leaving.

Assessment: medium-high

(e) Occupational structure (para. 52)

177. The study area has a higher proportion of skilled manual workers and a lower proportion of unskilled manual workers than England and Wales.

Assessment: medium-high

2. SIZE OF LABOUR CATCHMENT (paras. 44-45)

178. The study area forms a well defined and self-contained labour catchment of some 100,000 economically active persons. Its structure is centralised and efficient, but the extent to which its size enablea the economies of scale to be gained is not certain.

Assessment: medium-high

B - INDUSTRY AND EMPLDYMENT

3. EMPLOYMENT STRUCTURE (para. 62)

179. An above average proportion of local employment is in industries where employment has declined and is expected to continue to do so.

Assessment: medium-low

4. INDUSTRIAL LINKAGES (paras. 63-65 and 213)

180. Information collected by the industrial survey shows that the study area forms part of a wider industrial complex in which inter-firm linkages bring considerable benefits. Many of these linkages, however, are based on the wool industry.

Aaseasment: (a) Existing: high
(b) Potential for additional linkages: medium-low

5. NEW FIRMS (para. 66)

181. The limited evidence suggests that the area has not attracted any large manufacturing firms since the war due partly to labour shortages.

Assessment: low

6. LABOUR SUPPLY AND DEMAND (paras. 94-98)

182. A forecast of likely future trends in the labour market shows that the shortage of labour, which has been persistent in recent years, is likely to continue up to 1975, particularly for females. It should be noted that this assessment is wholly quantitative.

Assessment: (a) Supply of Labour: medium-low
(b) Supply of johs: medium-high

7. EARNINGS (paras. 88-92)

183. The indications are that the level of earnings, male and female, are well below national averages.

Assessment: medium-low

8. INDUSTRIAL RELATIONS (para. 93)

184. Industrial relations in the area are generally good, particularly in the wool industry.

Assessment: high

9. ACCESSIBILITY (Chapter 2)

185. In terms of accessibility to national markets and sources of supply, to airports and to the ports of Liverpool and Hull, firms in the area will benefit considerably from the completion of the M.62 and other motorways planned for completion by the mid-1970s.

Assessment: medium-high

C - INFRASTRUCTURE

10. HOUSING CONDITIONS (paras. 100-111)

186. Evidence from a number of sources shows the wide extent of sub-standard housing. Moreover, comparatively limited resources have been devoted to improvement.

Assessment: low

11. SUPPLY OF HOUSING LAND (para. 118)

187. Land allocated for residential development should be sufficient in the area as a whole up to 1981.

Assessment: medium-high

12. INDUSTRIAL BUILDINGS (paras. 119-123)

188. While there is an ample supply of cheap mill premises these are generally unsuitable for the needs of modern industry. Recent investment in new industrial buildings has been at a very low level.

Assessment: medium-low

13. SUPPLY OF INDUSTRIAL LAND (paras. 124-125)

189. Very little industrial land is available in the study area.

Assessment: low

14. TOWN CENTRES (paras. 126-128)

190. A major redevelopment scheme in Huddersfield is in process of completion and there is considerable space for expansion within the confines of the Inner Ring Road. Accessibility both to and within the centre will be improved considerably following the completion of road proposals in the Ministry of Transport programme and under consideration.

Assessment: medium-high

15. URBAN FORM (paras. 129-139)

191. At present congestion within the town centre and on some of its approaches prevents the full realisation of the advantages of accessibility inherent in the area's radial road pattern. Improvement schemes included in the road programme and under consideration

will, however, enable these benefits to be exploited further, and, by affording relief to certain parts of the network, will give the opportunity for urban growth. The linear form of development imposed by the valleys radiating from Huddersfield is an advantage to public transport operation.

Assessment: medium-high

16. PUBLIC UTILITIES (paras. 140-143)

192. Services appear to he adequate.

Assessment: medium

D - ENVIRONMENT

17. URBAN ENVIRONMENT (paras. 145-146)

193. The pattern of urban environment was set during the nineteenth century. While this has left a legacy of a number of buildings worthy of preservation it has also left an environment which is in many ways unsatisfactory.

Assessment: medium-low

18. COUNTRYSIDE AND OUTDOOR RECREATION (paras. 147-150)

194. All but the most extensive built-up areas benefit from an attractive landscape setting. The Pennines are a valuable recreational resource.

Assessment: medium-high

19. CLIMATE (para. 151)

195. The climate of the area is less agreeable than that of many other areas.

Assessment: medium-low

20. POLLUTION (paras. 152-155)

196. Atmospheric pollution is a problem in parts of the area, though some improvement has been made in recent years.

Assessment: medium-low

21. DERELICTION (paras. 156-157)

197. Although the area has a few spoil heaps and numerous stone quarries, their visual impact is lessened by the scale of the Pennine landscape.

Assessment: medium

22. EDUCATION SERVICES (paras. 158-161)

198. The standard of education services is generally about the national average and as regards further education, considerably better. The recent rise in the local birth rate, particularly children of Commonwealth immigrants, is causing some problems of provision.

Assessment: medium

23. HEALTH SERVICES (paras. 162-165)

199. The level of provision of most services is comparable with national averages.

Assessment: medium

24. COMMUNITY LIFE (paras. 166-170)

200. Although difficult to measure, community life in the area appears to be very well developed.

Assessment: medium-high

TABLE 29. ASSESSMENT

Scale used for assessment: 1 - high; 2 - medium-high; 3 - medium; 4 - medium-low; 5 - low.

Item No.	Item	Assessment				
		1	2	3	4	5
	A - Human Resources - Labour Supply					
1(a)	Types of labour - age				X	
(b)	" " " - health		X			
(c)	" " " - school-leaving age					X
(d)	" " " - training		X			
(e)	" " " - occupational structure		X			
2	Size of labour catchment		X			
	B - Industry and Employment					
3	Employment structure				X	
4(a)	Industrial linkages - existing	X				
(b)	" " - future potential				X	
5	New firms					X
6(a)	Labour supply and demand - supply of labour				X	
(b)	" " " " - supply of jobs		X			
7	Earnings				X	
8	Industrial relations	X				
9	Accessibility		X			
	C - Infrastructure					
10	Housing conditions					X
11	Supply of housing land		X			
12	Industrial buildings				X	
13	Supply of industrial land					X
14	Town centres		X			
15	Urban form		X			
16	Public utilities			X		
	D - Environment					
17	Urban environment				X	
18	Countryside and outdoor recreation		X			
19	Climate				X	
20	Pollution				X	
21	Dereliction			X		
22	Education services			X		
23	Health services			X		
24	Community life		X			

8. CONCLUSIONS

201. The results of the study are now brought together in an overall analysis of recent trends leading to a discussion of the area's future prospects. The previous chapter provides assessments of the significance of the economic, physical and social features of the area, but this is a static analysis in that it shows neither the relative importance of the various features nor the way in which they interact with each other. These inter-relationships are vital to an understanding of the trends at work in the study area and, since they have implications for the future, provide the main emphasis in this chapter.

INTER-RELATIONSHIPS

202. An examination of the economic trends in the study area in recent years shows that the most notable characteristics have been:-

(a) a lack of employment growth (Chapter 4);

(b) low unemployment and a persistent shortage of labour (Chapter 4);

(c) a net loss by migration of certain groups of the population which are of particular economic significance (Chapter 3).

203. The situation is complex but basic to any interpretation of these trends are two fundamental weaknesses; an industrial structure which is biased towards industries where demand is growing only slowly and in which employment is declining (Chapter 4); and a poor urban environment, especially housing (Chapters 5 and 6).

204. In employment terms, the largest single industry in the study area is wool textiles. In Chapter 4 it was shown that output of woollen cloth both in the study area and nationally has at best been static in recent years whilst worsted cloth production has fallen. The significance of these trends extends beyond the wool industry itself because it also purchases supplies and services from other industries. Examples of these industries in the study area are the manufacture of dyestuffs and textile machinery. Although no local production figures are available for these industries employment in the study area has fallen considerably in recent years, though this may in part be due to rising productivity, particularly in the case of dyestuffs manufacture.

205. On the other hand, the area has a range of engineering and other metal-using industries which, with the exception of textile machinery, have markets largely independent of the wool textile industry. This element of diversification to some extent offsets the effects of trends in the wool industry and in the firms linked to it.

206. Declining employment in manufacturing and primary industries results in a generally slow rate of growth of those service industries which are primarily dependent upon local demand. This in turn is reflected in terms of slow overall employment growth. It is possible that income available for expenditure on locally produced goods and services is further reduced by various "leaks" - e.g. the attraction of two major service centres (Manchester and Leeds) each within 25 miles of Huddersfield. In Chapter 1 it was stated that the proportion of the labour force in service industries in

1967 was only one-third in the study area compared with two-fifths regionally and a half nationally. Between 1959 and 1966 the rate of increase of service employment was only half the national rate. In 1966-67, however, service employment increased considerably due to investment in education and medical services. Although this investment was derived from Government rather than local sources, it nevertheless represents an additional source of employment income which will bring economically beneficial results.

207. The effect of low earnings (Chapter 4) together with the limited range of employment opportunities and rather unattractive working conditions (Chapter 5) is to encourage outward migration particularly of the more skilled and "white-collar" workers. Evidence of this is to be found in the analysis of migration by socio-economic group (Chapter 3), and in a number of comments by firms in the industrial survey to the effect that the standard of labour had fallen in recent years. On the other band, the ample supply of unskilled jobs, although baving generally low wage rates and poor prospects, appears to have attracted the less skilled and Commonwealth immigrants into the area.

208. Also contributing to the net migration loss is the poor urban environment, particularly poor housing (Chapter 5). Although it is impossible to measure the strength of this, the finding (Chapter 3) that all age groups (but particularly old people) are represented in the net outward migration suggests that dissatisfaction with the area as a place to live in is significant. The effect of the net migration loss is to impoverish the supply of labour in terms of both number and type.

209. By leading to labour shortage, selective net loss of population by migration slows down employment growth, both directly and through its effect of discouraging new industrial development. There are at least three other features of which industrialists would have to take note; first, the availability of land; secondly, environment; and thirdly, the attraction of other areas including the Development Areas.

210. Although the process described above can be detected in recent trends in the study area it is again emphasised that the situation is not one of decline but merely of slow growth. It is therefore not so serious as the situation in certain other parts of the country, but the danger signals are evident.

FUTURE PROSPECTS

211. No great changes can be expected to take place in the foreseeable future in the pattern of trends operating in the study area. Forecasts of labour demand (Chapter 4) show that demand is expected to remain static up to 1971 and then to decline by 2,000-4,000 by 1975. The longer term outlook is extremely difficult to assess, particularly in the engineering and metal-using industries where the future depends on the way in which a few large local firms develop their various products. However, in the wool industry, some pointers should be provided by the report being undertaken for the Economic Development Committee for the Wool Textile Industry, which is expected to be published in 1969. An encouraging recent development is the publication of the E. D. C's "Manpower Productivity Comparison" (Chapter 4). Although improvements in labour utilisation practices are not new, the publication of this report based on the method of inter-firm comparisons is likely to accelerate the process. Further improvements in productivity are also likely in the chemical industry. Although these developments in wool textiles and chemicals will undoubtedly lead to further reductions in the demand for labour they should also result in higher earnings. This is an important element in the improvement of the quality of employment necessary to break

into the self-reinforcing cycle outlined in the previous section. This is particularly significant since, as suggested below, local earnings are unlikely to get an upward push from the introduction of new industry, since the local circumstances which have hitherto tended to deter new industry seem likely to continue to operate.

212. In Chapter 4 it was suggested that the present shortage of labour is likely to continue in the foreseeable future. This would undoubtedly deter firms from setting up in the area even though the shortage itself stems largely from the unattractiveness of the jobs available in terms of earnings, working conditions and prospects.

213. Information collected from the industrial survey shows that the study area forms part of a much wider industrial complex (Chapter 4). However, many of these inter-relationships are based on the wool industry which suggests that the potential for attracting new firms based on these linkages is limited.

214. All the features assessed in Chapter 7 bear directly or indirectly on the attractiveness of the area to industrial development whether by firms already in the area or by new firms. Table 29 shows that a number of features are assessed above average, and can therefore be regarded as factors favouring economic growth. Although the overall labour supply situation is unfavourable, the labour force is skilled and has a good record as regards absence from work through ill-health. Industrial relations are good and the area provides an efficient and unified labour catchment. Improvement schemes included in the road programme and under consideration, by affording relief to certain parts of the network, will give the opportunity for urban growth. Other features supporting economic growth in a less direct way, are the adequate supply of housing land, the quality of the surrounding countryside and outdoor recreation facilities, education services and community life.

215. There will come into operation one significant new economic opportunity as a result of the completion of the M. 1 and M. 62 (Chapter 2). These roads will greatly improve access to national markets and sources of supply, to airports and also to the ports of Liverpool and Hull. In this respect the study area will be better placed than many other parts of the country.

216. On the other hand, there are a number of features with low assessments in Table 29 which are liable to inhibit growth. In addition to the difficult labour supply position and the bias towards the older age groups and early school leaving in the labour force as a whole, the supply of suitable industrial buildings and industrial land is limited. Housing conditions are poor and coupled with environmental difficulties (including climate and pollution) are liable to continue to affect the future of the area by deterring industrialists and influencing the pattern of migration adversely.

217. Except for the improvement in road communications the factors which are likely to influence economic growth in the future are broadly the same as those which have been operating in the past. It would therefore seem unlikely that the pattern of trends now in evidence will change significantly, so that assuming the continuation of existing policies - i. e. those operating at the time of writing (1968) before the publication of the report of the Hunt Committee - no marked improvement on the performance of recent years can be expected. Indeed there might be a danger that the cumulative process outlined at the beginning of this chapter could accelerate. The particular dangers of the situation are concerned with the quality of the area's jobs, migration loss, housing and environment. Deterioration can take place without a numerical decline; for instance, a balance in the total migration situation can mask significant losses of skilled workers which are offset by gains in the unskilled. As regards housing, it was calculated in

Chapter 5 that approximately half the stock of dwellings will need to be replaced by the end of the century. A continuation of past rates of clearance and building will be quite inadequate if this requirement is to be met. Even if the quality of employment opportunities were to improve in the longer term, it is likely that a housing stock which remained poor in comparison with other parts of the country would be an impediment to economic growth.

218. In order to remedy the deficiencies of the study area, action would be required on two main fronts. A higher rate of investment in industry would be necessary particularly to encourage modernisation of the wool textile industry; apart from general incentives, there may be a need for more land suitable for industry to be made available. Otherwise there is a danger that desirable and far-reaching changes in local industry, including growth in the more buoyant sectors, will be frustrated or diverted from the area altogether.

219. Also necessary would be further action to bring certain aspects of the area up to standard, in particular a considerable intensification of effort in housing (improvement and replacement) and in upgrading the urban environment. These improvements would substantially eliminate those disadvantages of infrastructure and environment which threaten to hold back industrial growth.

220. Action on both these fronts should enable the area to achieve a total population of approximately 224,000 in 1981. This would represent the retention of the area's natural increase of population and at least a substantial reduction in the net losses by migration of more skilled people. If action along these lines is not taken, the result to be expected would be a continuation of the recent slow rate of growth with the attendant dangers of deterioration.

9. SADDLEWORTH

221. As mentioned in Chapter 1, the Economic Planning Council requested that Saddleworth Urban District should be examined as part of this study. Besides its local government and parliamentary ties with the West Riding, Saddleworth's main industry is wool textiles and it therefore has strong associations with West Riding industry (see para. 229). However, as the study proceeded it became clear that despite these links with the West Riding, the Urban District is in most respects related to Lancashire. For this reason, Saddleworth has been treated separately from the Huddersfield/Colne Valley study area.

222. Saddleworth is situated on the western slopes of the Pennines adjoining the Lancashire and Cheshire borders. Much of the area is moorland. The pattern of settlement consists of a series of industrial villages along the valleys of the River Tame and the Diggle and Chew Brooks close to the Lancashire boundary on the south-west of the urban district. These villages are connected by ribbons of development following the valleys. More recent suburban development is now spreading up the steep valley sides, but the old stone-built village centres still form the nuclei of the settlement pattern. These centres are not dominated by the area's industrial development and the overall quality of the village environment is quite pleasing. Like the study area, the development of Saddleworth is closely linked with the wool textile industry which owed its location there to the abundant supply of soft water which was necessary for processing the wool, and later to provide power for the mills. A number of weavers' cottages still remain from the seventeenth and eighteenth centuries (see sketch on page 67).

223. Saddleworth is 14 miles from Huddersfield and is separated from it by an extensive area of Pennine moorland and roads which are sometimes impassable in winter. Its physical distinction from the study area is emphasised by its location on the opposite side of the main Pennine watershed. On the other hand, the urban district is only four miles from Oldham and twelve miles from Manchester. Figure 9 shows the tenuous bus connections between the study area and Saddleworth, which is served by routes radiating from Oldham, Manchester and Ashton-under-Lyne rather than from Huddersfield. Indeed, Saddleworth is included in the area designated by the Minister of Transport to be covered by the new Passenger Transport Authority for South-East Lancashire and North-East Cheshire.

224. The relative importance of Manchester and Huddersfield to the area may be assessed from Table 30, which shows that some 15,000 rail passenger journeys were made to Manchester in 1967 from the three stations in Saddleworth Urban District as against some 5,000 to Huddersfield. (The stations at Diggle and Saddleworth were, however, closed on 7th October, 1968 and Greenfield station is still the subject of a closure proposal.) It may also be significant that there are three trains a day to Manchester which start at Greenfield and two from Manchester which terminate at Greenfield. It is not possible to assess the importance of Oldham to the area because the Leeds-Huddersfield-Manchester railway line does not pass through Oldham and we have no statistics on journeys by bus or private car.

TABLE 30. ANNUAL RAIL TICKET ISSUES (SINGLE EQUIVALENTS[1]) FROM DIGGLE, SADDLEWORTH AND GREENFIELD TO MANCHESTER AND HUDDERSFIELD, 1967

Origin	Destination	
	Manchester	Huddersfield
Diggle	1,040	810
Saddleworth	3,920	2,160
Greenfield	10,290	2,360
Total	15,250	5,330

Notes:- 1. "Single equivalents" means that season ticket issues have been converted into the appropriate number of single journeys.

2. The above figures do not include journeys made on the return half of return tickets or on season tickets issued at Manchester or Huddersfield.

225. The population of the urban district in 1968 was 19,300 having increased by 16.2% since 1951 (see Table 4). This increase, which was much higher than that of the study area, resulted from a combination of a small natural decrease due to the relatively "old" age structure (see Table 3) and a high rate of net inward migration. The 1966 Census shows that a number equal to about 80% of Saddleworth's inward balance of migrants in the period 1961-66 came from Lancashire, particularly Oldham (see Table 31). By contrast, the Huddersfield/Colne Valley study area lost people to Lancashire by migration.

TABLE 31. SADDLEWORTH U.D.: ORIGIN AND DESTINATION OF MIGRANTS, 1961-66

Area of origin or destination	Immigrants	Emigrants	Balance
Total	4,120	1,530	+2,590
of which:-			
Lancashire	3,220	1,060	+2,160
(Oldham C.B.)	(1,680)	(540)	(+1,140)
Elsewhere in West Riding	150	70	+ 80

The gain by migration was common to all age groups. Numerically the biggest increase was in the 15-44 age groups but proportionately the largest gain was in the retirement age groups. Within the economically active population all the broad socio-economic groups experienced a net gain by migration. The largest gain was in the managerial and professional groups (see Table 32), whereas the Huddersfield/Colne Valley area had a relatively heavy net loss of these groups.

TABLE 32. SADDLEWORTH U.D.: SOCIO-ECONOMIC GROUP STRUCTURE OF ECONOMICALLY ACTIVE MIGRANTS, 1961-66

Socio-economic group	Immigrants from elsewhere in Great Britain	Emigrants to elsewhere in Great Britain	Balance
Managerial and Professional	670	130	+540
Intermediate and Junior non-manual workers, personal service workers	760	290	+470
Foremen, skilled manual and own account workers (other than professional)	560	170	+390
Semi-skilled and unskilled workers	320	220	+100

226. These trends are also reflected in recent developments in house building. Table 22 shows that the rate of private housing completions in relation to population has been very high. The land availability survey carried out by the Ministry of Housing and Local Government showed that in 1966 about 100 acres of land with a capacity for nearly 700 dwellings were available for development. The annual rate of housing completions has averaged 175 in recent years and if this continues this land would be used within four years. In addition, about 450 acres have been left as "white" land in the town map for the area, some of which may be suitable for development.

227. Figure 4 shows the pattern of journeys to work in the study area and Saddleworth in 1966. From this it is clear that Saddleworth U.D. has strong commuter relationships with Lancashire towns, but they are very weak with the rest of Yorkshire. Travel to work movements between Lancashire and Saddleworth have increased markedly since 1951, particularly journeys to Oldham C.B. (see Table 33).

TABLE 33. SADDLEWORTH U.D.: JOURNEY TO WORK MOVEMENTS 1951, 1961, 1966

	1951	1961	1966
Residents of Saddleworth U.D. working elsewhere:-			
Total	3,100	4,050	4,430
of which:-			
Working in Lancashire	2,850	3,790	4,020
(Oldham C.B.)	(1,480)	(2,380)	(2,470)
Working elsewhere in Yorkshire	140	120	150
Workers in Saddleworth U.D. from elsewhere:-			
Total	1,930	1,760	2,090
of which:-			
From Lancashire	1,730	1,550	1,970
(Oldham C.B.)	(730)	(620)	(790)
From elsewhere in Yorkshire	80	100	50

228. In 1966 some 48% of Saddleworth's economically active population worked outside the urban district; 27% worked in Oldham C.B. alone. Saddleworth is therefore clearly part of a larger labour catchment based on Oldham. For this reason Saddleworth does not provide a realistic unit for any analysis bearing on the relationship between labour supply and demand. The following paragraphs are therefore limited to a brief account of industry and employment in the area. Fortunately for statistical purposes, the Saddleworth Employment Exchange area coincides with that of the urban district.

229. The structure of local employment in 1967 is given in Table 34 which shows that 79% of the area's employment is in manufacturing industry. Textiles is by far the largest industry employing 41% of those who work in the area. Most employees in this industry are, as in the study area, engaged in woollen and worsted manufacture, though cotton (mainly weaving) is also important. There is also some textile finishing and carpet manufacture. In the industrial survey five Saddleworth textile firms provided details of the proportions of their output sold and their principal supplies purchased in both the West Riding and Lancashire. About 13% of the output and 57% of the principal supplies of these firms were to markets or from suppliers in the West Riding. By comparison Lancashire accounted for only 1% of the output and 15% of the principal supplies of these firms. Some of the firms referred to the technical training facilities available at the Huddersfield College of Technology and to the benefits to be derived from improved accessibility to the Huddersfield area as a result of the completion of the M62. The second largest industry is Paper, Printing and Publishing with 17% of all employees. Papermaking, like the textile industry, developed here because of the abundant supply of water. The area has Europe's largest cigarette paper-making works.

230. Service industries are of relatively minor importance in the local economy as Saddleworth depends on Oldham and Manchester for much of its needs.

231. Percentage changes in total employees between 1953, 1959 and 1967 are given in Table 8 which shows that in the period 1953-67 employment decreased by 9%. The decrease was more rapid in the earlier part of the period. The main decrease in employment in the latter period has been in manufacturing industry, largely due to declining textile employment. There has also been a small fall in construction. Employment in services has increased slightly due to an increase in professional and scientific services.

232. Unemployment in the area is extremely low. The yearly average unemployment rate has been less than 1% in 9 out of the last 12 years (see Table 15). In this period the number of unfilled vacancies notified for females has exceeded, on some occasions by three to four times, the number of females registered as unemployed. For males the number of vacancies notified exceeded the wholly unemployed in 4 out of the 12 years.

233. An analysis of activity rates by age groups based on the 1966 Census figures of economically active residents in the area given in Table 17, shows that rates for females are mainly well above those for Great Britain. Male rates are generally in line with national rates. These figures refer to residents wherever they work and, since so many people work outside the area, do not necessarily reflect the level of activity within Saddleworth.

234. In March 1968 nearly 300 people, slightly more men than women, were travelling into the area by special transport organised by employers. Most of these people came from Oldham and Mossley in Lancashire. At the same time there was believed to be no employer-organised transport taking workers out of the area.

TABLE 34. SADDLEWORTH: TOTAL EMPLOYEES BY INDUSTRY, 1967

Order	Industry	Total Employees Saddleworth	Percentage of Total Employees		
			Saddleworth	Yorkshire and Humberside	Great Britain
I and II	Primary Industries: Sub Total	100	1	7	4
V	Metal Manufacture	300	6	5	3
VI & IX	Engineering and Electrical Goods and Metal Goods	700	12	12	13
X	Textiles	2,300	41	8	3
XV	Paper, Printing and Publishing	900	17	2	3
etc.	All other manufacturing industries	200	4	16	17
III - XVI	Manufacturing Industries: Sub Total	4,400	79	43	38
XVII	Construction: Sub Total	200	3	7	7
XX	Distributive Trades	300	6	11	12
XXII	Professional and Scientific Services	200	4	10	11
XXIII	Miscellaneous Services	200	3	7	9
XXIV	Public Administration and Defence	100	2	5	6
XVIII, XIX, XXI	All other Service industries	100	1	10	12
XVIII - XXIV	Service Industries: Sub Total	900	16	43	51
	GRAND TOTAL	5,600	100	100	100

Notes: 1. Figures are rounded to the nearest hundred and do not therefore add up in all cases to the totals shown.

2. Unlike Great Britain and Yorkshire and Humberside, Saddleworth figures do not include an allocation for permanent civil servants and certain 'unlocated' workers. As many of these are in service industries, Saddleworth figures for this group are underestimated.

235. The evidence therefore suggests a fairly persistent shortage of female labour in the area, and possibly some shortages of male labour.

236. Apart from its function as a dormitory area for Greater Manchester, Saddleworth is also an important recreational area. Part of Saddleworth Moor is included in the Peak District National Park (see Figure 10). Traditional usage of this part of the Park has been from the South-East Lancashire conurbation with Greenfield acting as a centre for ramblers and a starting point for access to Ash Way Gap and the north-west facing climbing edges. Some of the numerous reservoirs are used for boating and fishing. A notable example is at Dove Stone reservoir (see sketch on page 58) where the Peak Planning Board have implemented a comprehensive scheme providing for camping sites, dinghy sailing, picnic sites with car parking facilities, public conveniences and view points.

237. Despite its historical ties with the West Riding which are still reflected in its local government and parliamentary associations and in its wool industry linkages, it is clear that the area's main links as regards employment, services and transport are now with Lancashire. The urban district's functions as a dormitory area for commuters and a retirement area for Greater Manchester are increasing in importance, though its ability to perform these functions may be impaired in future unless further residential land is released for development. But further study would be needed to determine whether this is necessary or desirable, taking into account the trends and likely needs within the South East Lancashire conurbation as a whole.

APPENDICES

Page

APPENDIX A GLOSSARY AND STATISTICAL SOURCES 87

Glossary 87
Statistical Sources 89

APPENDIX B POPULATION STATISTICS 92

1. Home Population Changes 1961-62 92
2. Home Population Changes 1962-68 92
3. Age/Sex Structure of the Population 1951, 1961 and 1966 93

APPENDIX C THE INDUSTRIAL SURVEY 94

APPENDIX D EMPLOYMENT STATISTICS 97

1. Changes in Total Employees 1953, 1959 and 1967 98
2. Wholly Unemployed Adults and Unfilled Vacancies for Adults, Analysis by Major Occupational Groups, June 1967 99
3. Wholly Unemployed and Unfilled Vacancies (including Young Persons), Analysis by Industrial Groups, June 1967 101

APPENDIX E TRAINING FACILITIES 102

APPENDIX F LABOUR SUPPLY AND DEMAND ESTIMATES 104

APPENDIX G HOUSING STATISTICS 106

1. Some Estimates of Sub-Standard Dwellings 106
2. Age of Housing Stock 107
3. Rateable Value of Dwellings, April 1968 107

Page

APPENDIX H HEALTH STATISTICS 108

1. Provision of Hospital Beds 108
2. Principal Causes of Incapacity for Work (Males) in Huddersfield C.B. 1961-2 (12 months) 109

APPENDIX J NOTE ON AGRICULTURE 110

APPENDIX

A

GLOSSARY AND STATISTICAL SOURCES

This appendix provides a glossary of some of the technical terms used in the report and notes on the sources of statistical data used in the report and in the Appendices.

GLOSSARY

Transport (Chapter 2)

TRUNK ROUTE

A trunk route is one for which because of its national importance the Minister of Transport is the highway authority - except in most county boroughs (including Huddersfield), where the County Borough Council is the highway authority.

PREPARATION POOL

Schemes in the preparation pool can be expected to take their place in the firm programme as funds become available, provided that preliminary work on them has reached a sufficiently advanced stage to justify the committal of funds to their construction and to demonstrate that the scheme gives value for money.

PROJECT FEASIBILITY STUDY

A project feasibility study is employed in those cases where traffic needs appear likely to demand a completely new road rather than the reconstruction of an existing one. If as a result of the study the project does in fact appear feasible it would take its place in the preparation pool and ultimately in the rolling programme.

Population (Chapter 3)

HOME POPULATION

The civilian population resident in an area plus armed forces stationed in that area.

NATURAL INCREASE

Births in an area minus deaths.

BALANCE (MAINLY MIGRATION)

The 'balance' between the total change in population and the natural change (births minus deaths) is attributable to net movements of population into or out of an area. These are mainly civilians but also include an element resulting from changes in the armed services, particularly relevant in the 1950s when National Service was in operation and also when the 'run-down' of the armed forces began.

Industry and Employment (Chapter 4)

NET OUTPUT PER WORKER

The value added to materials by the process of production per unit of labour employed, at the prices current at the time.

HORIZONTAL ORGANISATION

An industry is said to be horizontally organised when many of its member firms specialise in different stages of the production process.

WHOLLY UNEMPLOYED

A wholly unemployed person is one who is completely without a job, or in a very few cases one who, when "temporarily stopped" by his employer, had no reason to expect a resumption of work within six weeks.

TEMPORARILY-STOPPED

A temporarily-stopped person is one whose employer, when standing him off work, gave a clear expression of intention to re-employ him at the same establishment within six weeks.

UNLOCATED WORKERS

Annual employment estimates for local areas are mainly based on the number of National Insurance cards exchanged within the three months period beginning on the first Monday in June and on information supplied by employers during this period. Although most cards exchanged by employers in a particular area are for persons employed locally, some are for workers in other parts of the country. When an employer reveals that he has exchanged cards for 20 or more workers in other districts he is asked to state how many are involved and (for all industries except Distributive Trades) to list the area of employment and number involved for any group of 10 or more. Workers "located" in this way appear in the employment estimates for the local area in which they are employed. Workers who remain "unlocated" do not appear in any local area estimates but they do appear in estimates for the region and in national estimates.

MINIMUM LIST HEADINGS OF THE STANDARD INDUSTRIAL CLASSIFICATION

Minimum List Headings (M.L.Hs.) are numerical codings given to sub-sections of the Industrial Orders of the Standard Industrial Classification (1958) as a concise means of reference for the 152 industrial and commercial activities which the Classification covers. The M.L.Hs. are grouped, according to affinity of activity, into 24 Industrial Orders, each of which spans an important area of economic activity. For example, Order I covers agriculture, forestry and fishing, and M.L.H. 001 represents agriculture, 002 forestry etc.

PRIMARY INDUSTRIES

The primary industries are agriculture and horticulture, forestry, fishing and mining and quarrying i.e. industries whose products are grown or are extracted directly from the land or sea without processing.

Environment (Chapter 6)

TEMPERATURE INVERSION

A condition where there is an increase in air temperature with height caused by the downhill flow of cold dense air under calm conditions. In temperate latitudes during winter it is characteristic of anti-cyclonic conditions (i.e. high pressure) and is often associated with fog.

BLACK AREAS

Local authority areas in which a high density of industrial and other urban development produces severe air pollution were listed as "black" in Cmnd. 1890 (1962).

STATISTICAL SOURCES

POPULATION

Population data in Chapter 3 and Appendix B relate to the Home Population except in the case of Census figures which are based on the enumerated population. The sources of these data are the Registrar General's decennial Censuses, the 1966 10% Sample Census and the Registrar General's natural change data and annual estimates of population. It should be noted that the 1966 Sample Census is estimated to be under-enumerated nationally by about 1.4%.

The migration data for 1961-66 in Chapter 3 is derived from the 1966 Sample Census. These data are subject to a number of limitations and because of this no tables based on these figures are included either in the text or in the Appendices except in one case (see below). Because the numbers involved are often small the sampling errors are likely to be significant. Moreover, the questions relating to occupation and industry refer to a person's job at April 1966 and ignore changes of occupation and industry between 1961 and 1966; conclusions on trends are therefore unreliable. On the other hand, socio-economic group status is less likely to change over a five year period and this table was therefore included (Table 5) using very broad groups for classification.

INDUSTRY AND EMPLOYMENT

Appendix C gives details of the Industrial Survey which provided the data for a number of references and tables in Chapter 4 and elsewhere in the report.

Information used in Chapters 1 and 4 and Appendix D on employment, unemployment, vacancies and special transport for employees was provided by the Department of Employment and Productivity for individual Employment Exchange areas. Regional and national data about most of these matters and about earnings are published in the Employment and Productivity Gazette. Information on earnings of residents in Huddersfield C.B. was also available from an unpublished survey by the then Ministry of Social Security. These figures are based on a ½% unrated sample of national insurance cards.

The statistics of deliveries of woven wool fabrics (Chapter 4) for both the Huddersfield area (which broadly corresponds to the study area) and Great Britain were obtained from the Wool Industry Bureau of Statistics.

HOUSING

Statistics on housing in Chapter 5 and Appendix G were obtained from the Census reports and from the Ministry of Housing and Local Government. The use of different sources has resulted in discrepancies in the totals given for the housing stock of the study area. The estimates of dwellings built before 1914 were obtained from surveys by the West Riding County Council and Huddersfield County Borough Council. The corresponding national figure was estimated by the Ministry of Housing and Local Government. Local statistics on the rateable values of dwellings and other hereditaments were provided by the Ministry of Housing and Local Government.

EDUCATION

Statistics for the Upper Agbrigg Division of the West Riding were not readily available so the information on Education in Chapter 3 (school-leaving age) and Chapter 6 relates only to Huddersfield C.B. Educational data were obtained from:-

(a) the School Building Survey 1962 (Ministry of Education)

(b) List 69 and List 71 (both now discontinued) and the annual Statistics of Education (Department of Education and Science)

(c) House of Commons official Report: Parliamentary Debates (Hansard) 5th December, 1968. Written answers, Columns 537 and 538 (figures of immigrant pupils)

(d) the Huddersfield Borough Council.

HEALTH

Data on the provision of hospital beds in Chapter 6 and Appendix H were obtained from the Leeds Regional Hospital Board. Local data on general practitioners and dentists were obtained from the Medical Executive Council's lists. National and regional data are published in the Annual Reports of the Department of Health and Social Security. The information on local authority provided health and welfare services is derived from Cmnd. 3022 - Health and Welfare: The Development of Community Care. The data on absence from work through ill-health in Chapter 3 and Appendix H is based on a survey by the then Ministry of Pensions and National Insurance - Report on an Enquiry into the Incidence of Incapacity for Work, Part II.

OTHER STATISTICS

In Chapter 6, the data on climate came from the Meteorological Office. Statistics on dereliction and smoke control were provided by the Ministry of Housing and Local Government.

Data on new industrial buildings and extensions (Chapter 5) were provided by the Board of Trade.

Information on rail ticket issues (Chapter 9) was obtained by the Ministry of Transport from British Railways.

APPENDIX

POPULATION STATISTICS

B

APPENDIX

HOME POPULATION CHANGES 1961 - 62

B1

Area	Home Population 1961	Estimated Changes 1961–1962						Home Population 1962
		Total Change		By births and deaths		Balance (mainly migration)		
		No.	%	No.	%	No.	%	
Huddersfield C.B.	129,900	1,200	0.9	600	0.5	600	0.5	131,100
Colne Valley U.D.	21,300	-100	-0.5	-	-	-100	-0.5	21,200
Denby Dale U.D.	9,300	100	1.1	-	-	100	1.1	9,400
Holmfirth U.D.	18,400	100	0.5	-	-	100	0.5	18,500
Kirkburton U.D.	18,100	200	1.1	100	0.6	100	0.6	18,300
Meltham U.D.	5,500	100	1.8	-	-	100	1.8	5,600
Total Study Area	202,500	1,600	0.8	700	0.3	900	0.4	204,100
Saddleworth U.D.	17,100	200	1.2	-	-	200	1.2	17,300
Yorkshire and Humberside	4,595,900	41,200	0.9	25,600	0.6	15,600	0.3	4,637,100
Great Britain	51,389,000	516,300	1.0	312,200	0.6	204,100	0.4	51,905,300

APPENDIX

HOME POPULATION CHANGES 1962 - 68

B2

Area	Home Population 1962	Estimated Changes 1962–1968						Home Population 1968
		Total Change		By births and deaths		Balance (mainly migration)		
		No.	%	No.	%	No.	%	
Huddersfield C.B.	131,100	-100	-0.1	4,400	3.4	-4,500	-3.4	131,000
Colne Valley U.D.	21,200	-100	-0.5	200	0.9	-300	-1.4	21,100
Denby Dale U.D.	9,400	1,000	10.6	200	2.1	800	8.5	10,400
Holmfirth U.D.	18,500	400	2.2	300	1.6	100	0.5	18,900
Kirkburton U.D.	18,300	1,300	7.1	400	2.2	900	4.9	19,600
Meltham U.D.	5,600	600	10.7	200	3.6	400	7.1	6,200
Total Study Area	204,100	3,100	1.5	5,700	2.8	-2,600	-1.3	207,200
Saddleworth U.D.	17,300	2,000	11.6	200	1.2	1,800	10.4	19,300
Yorkshire and Humberside	4,637,100	133,500	2.8	169,000	3.6	-35,500	-0.8	4,803,600 *
Great Britain	51,905,300	1,875,200	3.6	1,999,900	3.9	-124,700	-0.2	53,780,500

* As a result of boundary extensions in 1967 the home population was inflated by about 33,000 persons. Consequently the total change figure does not equal the difference between the two end dates.

B3

AGE/SEX STRUCTURE OF THE POPULATION 1951, 1961 AND 1966

Area	Year	Age-Sex Groups (percentages)							
		0-14		15-39		40-59/64		60/65 +	
		M	F	M	F	M	F	M	F
Great Britain	1951	11.5	11.1	17.0	17.9	14.9	14.0	4.5	9.1
	1961	12.0	11.4	16.4	16.4	15.4	13.8	4.5	10.1
	1966	11.9	11.3	16.4	16.2	15.4	13.5	4.6	10.7
Yorkshire and Humberside	1951	11.6	11.1	17.0	17.7	15.2	14.1	4.4	8.9
	1961	12.1	11.5	16.3	16.1	15.7	13.7	4.4	10.1
	1966	12.1	11.5	16.4	16.0	15.6	13.2	4.6	10.5
Study Area	1951	10.1	9.8	15.8	16.5	16.4	15.9	4.9	10.6
	1961	11.1	10.6	15.4	15.3	16.6	14.7	4.7	11.6
	1966	11.2	10.6	15.5	15.4	16.1	13.8	5.3	12.1
Huddersfield C.B.	1951	10.2	9.8	16.1	16.7	16.3	15.9	4.7	10.3
	1961	11.2	10.8	15.8	15.6	16.4	14.4	4.4	11.3
	1966	11.3	10.9	15.9	15.6	16.0	13.5	5.1	11.8
Colne Valley U.D.	1951	10.1	9.6	15.6	16.3	16.9	15.9	5.0	10.6
	1961	11.5	10.7	14.3	14.7	17.0	15.0	5.3	11.6
	1966	11.7	10.8	13.8	14.6	16.9	13.5	5.7	13.0
Denby Dale U.D.	1951	10.8	10.7	15.1	16.1	16.5	15.1	5.6	10.1
	1961	11.3	9.9	14.7	15.5	17.1	15.0	5.2	11.3
	1966	10.6	10.4	15.7	16.2	14.8	12.8	6.2	13.2
Holmfirth U.D.	1951	10.5	9.7	15.1	16.1	16.3	15.9	5.3	11.0
	1961	11.0	10.4	14.8	15.0	16.3	14.9	5.3	12.3
	1966	11.0	9.8	15.7	14.6	16.0	14.5	5.1	13.2
Kirkburton U.D.	1951	9.0	9.0	15.0	15.7	17.1	16.8	5.4	12.1
	1961	9.7	9.4	14.7	14.5	17.1	15.7	5.6	13.3
	1966	10.4	9,3	15.3	14.9	17.2	15.2	5.4	12.3
Meltham U.D.	1951	10.8	10.3	14.3	16.7	15.9	15.9	5.4	10.4
	1961	11.6	11.2	14.9	15.0	16.7	15.0	4.5	11.0
	1966	12.4	11.6	15.1	16.0	16.0	15.3	4.4	9.2
Saddleworth U.D.	1951	10.1	9.8	14.9	15.9	16.8	16.2	5.5	10.8
	1961	10.3	9.4	14.6	15.1	17.6	16.0	5.3	11.7
	1966	9.9	11.3	14.7	16.0	17.2	15.2	5.2	10.5

APPENDIX

C

THE INDUSTRIAL SURVEY

The findings of the industrial survey are mentioned on a number of occasions in the study. This appendix gives details of the sample survey.

METHOD

A sample of 240 firms in the study area and 20 in Saddleworth was compiled from the Board of Trade's records of manufacturing establishments. The largest firms were included plus a proportion of smaller establishments. These firms were sent a postal questionnaire.

67 firms from the study area and 8 from Saddleworth returned the questionnaire completed or partly completed. The total response represented a rate of 28% of the firms sampled in the case of the study area and 40% in Saddleworth. This response was a little disappointing but the replies did provide a basis for analysis.

The 67 firms in the study area who responded to the survey employed a total of 19,930 workers at December 1967, and the total employed at the 8 Saddleworth firms was 1,750. Table C. 1. compares the structure of manufacturing employment in the study area and Saddleworth with employment in the firms who replied to the industrial survey.

TABLE C. 1: COVERAGE OF THE INDUSTRIAL INQUIRY REPLIES

Industry	Employees in firms responding to the Industrial Survey December 1967	Employees in firms responding to the Survey as % of total Employees in each Industry
Study Area		
Chemicals and Allied Industries	3,380	61
Engineering and Electrical Goods and Vehicles	8,730	52
Textiles	6,610	23
All other Manufacturing Industries	1,210	19
Total	19,930	35
Saddleworth		
Textiles	870	38
Paper, Printing and Publishing	490	54
All other Manufacturing Industries	390	31
Total	1,750	40

SCOPE OF THE SURVEY

A total of 21 questions were asked. Analysis of many of the answers may be found in the text. The questions related to:-

1. Date of establishment - whether post 1945; see para. 66.

2-3. Site considerations:-

  2.A Area of site.
  2.B Room for expansion.
  3.A Adequacy of site; see para. 125.
  3.B Land available for development.

4. Advantages and disadvantages of location in the area; see paras. 43 and 125 and details below.

5. Means of transport used for carrying firms' products; see para. 25.

6. Effect of the M. 62 on the firm (2 questions); see para. 20.

7-9. Availability of services:-

  7. Adequacy of services; see para. 25.
  8. Use of technical services; see paras. 65 and 229.
  9. Training facilities (2 questions).

10. Employment at June 1966, December 1967 and forecast for 1971; this information is used in the estimate of future demand for labour in para. 96 and Appendix F.

11. Grades of labour employed; see paras. 75 and 77.

12. Recruitment experiences:-

  12.A Experience in the last two years; see para. 85.
  12.B Changes in the local labour market over the last ten years; see para. 86.

13. Part-time employment for women.

14-16. Sources of principal supplies used in production and distribution of sales:-

  14. Principal products of firm.
  15. Distribution of sales; see paras. 63 and 64.
  16. Sources of principal materials and supplies; see paras. 63 and 64.

ADDITIONAL MATERIAL REFERRED TO IN THE TEXT

Brief mention was made (paras. 43 and 125) of Question 4 which asked firms about the main advantages and disadvantages of location in the area. Although the points made are to be found in different parts of the report, it is worth bringing together the most frequently mentioned factors:-

ADVANTAGES

(i) Proximity to suppliers of raw materials and to customers, local linkages with other establishments; 12 textile firms and a few other firms mentioned these factors;

(ii) the presence of a skilled labour force; this was mentioned by 7 firms in the textile industry, 11 in engineering and 4 others;

(iii) availability of water supply; 10 textile firms and 1 chemical firm mentioned this.

DISADVANTAGES

(i) Labour shortages and recruitment difficulties. Although covered elsewhere in the questionnaire, 19 firms including 11 textile firms reiterated and elaborated the point;

(ii) site difficulties in relation to expansion, and inadequacy of premises; 21 mentions;

(iii) communication disadvantages; a number of mentions;

(iv) poor environment and amenities; 6 mentions.

APPENDIX

D

EMPLOYMENT STATISTICS

NOTES

Employment statistics are subject to sampling errors which can be substantial and therefore all figures are shown to the nearest hundred and the percentages to the nearest whole number. For the same reason industries employing fewer than 2,500 in the study area are not shown separately.

A definition of "unlocated workers" is given in Appendix A. Most of these workers are in the service industries, especially the distributive trades. In addition permanent civil servants and G.P.O. employees who do not hold National Insurance cards are not allocated to local areas. "Unlocated workers" and permanent civil servants, etc. are therefore included in national and regional estimates only, and not in local area estimates. This means that figures for the study area are understated and are not strictly comparable with those for the Yorkshire and Humberside region or Great Britain. In particular the study area's proportion of service employment is underestimated.

In 1959 the Standard Industrial Classification was revised and employment figures for individual industries up to and including 1958 are not comparable with those for 1959 onwards. Only figures for the total number of employees are therefore given for the period before 1959. Because cyclical fluctuations affect the numbers employed, figures are given for years at roughly similar stages in the economic cycle. There are also a number of other discontinuities in the time series of figures for Employment Exchange areas which may distort changes between 1959 and 1966, in particular a change in the method for estimating the number of employees in 1962.

Because the Yorkshire and Humberside region was not defined until 1965 it has only been possible to base the regional percentage unemployment figure (Table 15) on official regional statistics of total employees from that year. For previous years it has been necessary to use employment estimates, and unemployment percentages based on them may be slightly over-estimated.

APPENDIX

D1

CHANGES IN TOTAL EMPLOYEES, 1953, 1959 AND 1967

Thousands

Area	Total Employees					Males					Females				
	1953	1959	1967	Change		1953	1959	1967	Change		1953	1959	1967	Change	
				1953-59	1959-67				1953-59	1959-67				1953-59	1959-67
Study Area	94.8	92.2	95.2	-2.6	+3.0	59.9	58.0	60.4	-1.8	+2.4	34.9	34.1	34.8	-0.8	+0.6
Saddleworth U.D.	6.2	5.8	5.6	-0.4	-0.2	3.9	3.6	3.5	-0.3	-0.2	2.3	2.1	2.1	-0.1	-
Yorkshire and Humberside	1,941.2	2,004.1	2,068.3	+62.9	+64.2	1,295.9	1,324.3	1,330.1	+28.4	+5.8	645.3	679.8	738.2	+34.5	+58.4
Great Britain	20,880.0	21,870.0	23,282.8	+990.0	+1,412.8	13,720.0	14,230.0	14,727.3	+510.0	+497.3	7,160.0	7,640.0	8,555.5	+480.0	+915.5

Notes: 1. As figures are rounded to the nearest hundred, they do not necessarily produce the exact totals or changes shown.

2. There are a number of discontinuities in the time series of figures which may distort changes in the study area and Saddleworth U.D. over the period.

APPENDIX

D2

WHOLLY UNEMPLOYED ADULTS AND UNFILLED VACANCIES FOR ADULTS, ANALYSIS BY MAJOR OCCUPATIONAL GROUPS. JUNE 1967

Occupational Group	Wholly Unemployed	Unfilled Vacancies
MEN		
Miners and Quarrymen	-	54(1)
Engineering, electrical and allied trade workers	21	162
Woodworkers	7	20
Textile workers	25	78
Construction workers	6	17
Transport and communication workers	33	58
Warehousemen, packers etc.	21	6
Clerical workers	82	15
Shop assistants	10	3
Service, sport and recreation workers	14	8
Administrative, professional and technical workers	29	29
Labourers (2)	226	55
All other occupations	9	26
Total	483	531
WOMEN		
Engineering, electrical and allied trades workers	-	4
Textile workers	26	80
Clothing etc. workers	1	16
Transport and communication workers	2	70
Clerical workers	18	18
Shop assistants	17	22
Service, sport and recreation workers	16	22
Administrative, professional and technical workers	3	129
Factory hands and miscellaneous unskilled workers (2)	65	18
Total	148	379

(1) All these vacancies were subsequently withdrawn.

(2) Most unskilled workers and vacancies are included in these groups. The other occupational groups are an amalgam of occupations, mostly skilled and semi-skilled.

Notes: There are a number of reasons for workers being unemployed when there are vacancies in the same main occupational groups. For example, because the workers do not possess the skills or experience demanded by the employers.

Too firm conclusions cannot be drawn from these analyses. Vacancies unfilled do not epresent total labour demand as not all vacancies are notified to Employment xchanges. Moreover they can be distorted by abnormal or transient features and do ot reliably reflect the general vacancy position as many vacancies for unskilled orkers are filled very quickly and do not show up in these figures. Further, the etails relate to June, when seasonal influences make unemployment relatively low and nfilled vacancies relatively high. They also relate to a period of relatively low conomic activity. The figures for women do not represent the true position in recent ears when unfilled vacancies have generally been appreciably higher and unemployment little lower. For men, the unfilled vacancy position is reasonably representative of ecent years but unemployment is at a higher level than has been normal. June 1967 tatistics were taken because most of the other employment data used related to this onth.

APPENDIX

D3

WHOLLY UNEMPLOYED AND UNFILLED VACANCIES (INCLUDING YOUNG PERSONS), (1) ANALYSIS BY INDUSTRIAL GROUPS. JUNE 1967

Industry	Wholly Unemployed	Unfilled Vacancies
MALES		
Agriculture and Mining	10	75(2)
Chemicals and Allied Industries	37	72
Engineering, Electrical and Metal Goods and Vehicles	45	173
Textiles	105	204
All other Manufacturing Industries	27	49
Construction	61	82
Transport and Communication	33	56
Distributive Trades	40	37
Professional and Scientific Services	5	38
Miscellaneous Services	34	41
Public Administration and Defence	29	11
All other Service Industries	20	23
Unclassified (No recent industrial experience)	43	-
Total	489	861
FEMALES		
Agriculture and Mining	-	1
Chemicals and Allied Industries	3	19
Engineering, Electrical and Metal Goods and Vehicles	6	26
Textiles	64	221
All other Manufacturing Industries	6	36
Construction	-	1
Transport and Communication	1	71
Distributive Trades	15	63
Professional and Scientific Services	12	136
Miscellaneous Services	23	44
Public Administration and Defence	6	21
All other Service Industries	1	6
Unclassified (No recent industrial experience)	25	-
Total	162	645

(1) This table includes young persons whereas Appendix D2 was based only on adults.
(2) Many of these vacancies were in coalmining and were subsequently withdrawn (see Note (1) to Appendix D2).

Note: The same limitations of the data, outlined in the notes to Appendix D2 apply to this table.

PPENDIX

E

TRAINING FACILITIES

etails of the arrangements for formal training in the area's principal industries.

(a) Woollen and Worsted

Training recommendations for all types of training in the industry have now been prescribed by the Wool Jute and Flax Industry Training Board which makes adherence a condition for grant payment. Operative training is widely available for adults as well as school leavers and is usually given "on the job", although some firms have established training schools for menders. There are good local facilities for craft apprenticeship training which is linked to part-time day release courses. Training opportunities for textile technologists and higher technicians are also locally available - the Woollen and Worsted Federation have established a special training scheme aimed at training for management or positions in work study, quality control, design, etc. The industry is now providing formal training for all types of clerical workers and increasing numbers are being released for part-time studies leading to recognised qualifications. Training as instructors and supervisors is also available at the Huddersfield College of Education. Training facilities in the industry in the area are good and generally more than adequate for the intake.

(b) Engineering

Recruitment into this industry is mainly at craft apprenticeship level. The first year of craft apprenticeship training is now given mainly off the job as required by the Engineering Industry Training Board for full grant purposes. Some firms provide this at their own training schools, but increasing numbers of small Huddersfield firms are participating in the Engineering Industry Group Apprenticeship scheme and there are also classes at the Ramsden Technical College. Full-time, off-the-job and part-time day release training for student and technician apprentices is available at local Colleges. Formal training schemes for commercial and administrative apprentices exist in the larger firms which are increasingly granting part-time day release to their office workers. There is no organised operator training for boys; those who fail to reach craft apprenticeship standard usually remain in the industry as operators. One or two firms, however, provide operator training for adults.

(c) Vehicles

The very large local firm of tractor manufacturers has well organised training schemes at all levels (craft, student, technician and graduate). Operator and apprenticeship training is provided in the firm's own training centre. Attendance at Higher National Diploma, etc. courses is expected of apprentices at higher levels. Commercial training is also available.

(d) Chemicals

Training in the area is almost wholly concentrated at the two large dyeware manufacturers. At only one of these is there provision for formal training as chemical plant operator and this - a four year scheme with block release to Ramsden Technical College - has only recently been launched. Both firms, however, offer craft apprenticeships in chemical plant engineering and construction, technical apprenticeships for G.C.E. level entrants and facilities for training as laboratory assistants. Part-time day release for full-time H.N.D. courses is automatic. Commercial training is not so well developed although part-time day release may be granted on request. The recent establishment of the Chemical and Allied Products Industry Training Board is likely to improve provision at the smaller firms.

(e) Construction

There is as yet little systematic training in construction in the area but recently a Group Apprentice Training Scheme has been started in this field by the Construction Industry Training Board, the first in the region for this industry, and organised training should improve as a result. Meantime, boys joining as craft apprentices are allowed part-time day release by their employers. Opportunities for technician apprentices at G.C.E. 'O' level are rare. Little training is available to commercial workers in this industry which has few large firms locally.

APPENDIX

F

LABOUR SUPPLY AND DEMAND ESTIMATES

An explanation of the methods used and of the inherent difficulties in arriving at the estimated supply of and demand for labour in 1971 and 1975 (Chapter 4) is given below. A high and constant level of industrial activity, as in 1966, has been assumed in arriving at these estimates.

LABOUR SUPPLY

There are particular difficulties in preparing labour supply estimates for small areas - the greater potential error in dealing with small numbers; the need to estimate "unlocated worker" figures (see Appendix A); and the possible distortion of activity rates arising from travel to work across the area's boundaries. Fortunately the study area is reasonably self-contained so that the latter difficulty is not significant.

Supply estimates were made by applying assumed activity rates to estimates of the home population for the area in 1971 and 1975. An activity rate in this context is the proportion of total employees working in the area to the whole population aged 15 and over who are resident in the area. Rates were calculated for males and females separately for 1959 and 1967 and their differentials established with those for Great Britain. Forecasts of rates for the study area for 1971 and 1975 were made by projecting the trend in differentials between 1959 and 1967 applying them to the Great Britain forecasts for these years and slightly modifying them in the light of local circumstances. The important effects of the 1973 raising of the school-leaving age were taken into account.

Because net outward migration in recent years has not been large only one set of supply estimates - based on the home population including migration - has been prepared.

The supply estimates include both the employed and unemployed. There is always a residual number of unemployed, comprising those who cannot be absorbed into employment quickly and others moving from one job to another. Because of this a level of unemployment of 1.2% for men and 0.8% for women has been deducted from the total supply figures to provide the "effective" labour supply estimates shown in Table 20.

LABOUR DEMAND

Labour demand estimates for the study area for 1971 and 1975 were obtained by projecting past employment trends and modifying them in the light of local knowledge of (a) the main firms' activities; (b) job expectations from industrial development known to the Board of Trade; and (c) replies to the Industrial Survey. The likely broad industrial changes in Great Britain in the next two or three years provided a back-cloth to the exercise.

Problems arise in producing demand estimates for small areas. Any large scale expansion or contraction by a single major employer can unduly influence overall demands; the demand component for "unlocated workers" can only be roughly estimated; and it is difficult to assess the effects of the close proximity of other industrial centres on future labour demand. Identifying the past level of labour demand is particularly difficult in an area like Huddersfield with a persistent labour shortage. Often employers fail to notify their vacancies to Employment Exchanges or to advertise them because they are unlikely to be filled.

The pace of industrial change makes manpower forecasting speculative and the further ahead the forecast the more unreliable the estimates. A continuation of the trend towards higher productivity has been assumed but no allowance could be made for the effects of any important technological breakthrough.

APPENDIX

G

HOUSING STATISTICS

APPENDIX

G1

SOME ESTIMATES OF SUB-STANDARD DWELLINGS

Area	Unfit Dwellings at 1st Quarter 1965		Back to Back Houses 1967		Households Lacking Certain Amenities, 1966					
					Hot Water Tap		Fixed Bath		Water Closet	
	No.	%	No.	%	No.	%	No.	%	No.	%
Huddersfield C.B.	3, 570	7.5	5, 580	12	5, 890	12.9	10, 780	23.5	220	0.5
Colne Valley U.D.	900	10.9	540	7	1, 030	13.5	2, 270	29.6	540	7.1
Denby Dale U.D.	190	5.1	80	2	220	6.0	640	17.6	170	4.7
Holmfirth U.D.	350	5.0	n.a.	n.a.	660	9.9	1, 710	25.7	470	7.1
Kirkburton U.D.	340	5.8	80	1	660	11.3	1, 220	20.9	440	7.5
Meltham U.D.	70	3.4	40	2	190	9.5	320	15.9	80	4.0
Study Area	5, 420	7.3	6, 320	8	8, 650	12.1	16, 940	23.6	1,920	2.7
Saddleworth U.D.	350	4.9	100	1	770	11.3	1, 330	19.5	340	5.0
Yorkshire and Humberside	137, 390	8.7	98, 790	6	172, 940	11.2	270, 880	17.5	25, 200	1.6
England and Wales	823, 700	5.5	n.a.	n.a.	1, 925, 940	12.5	2, 295, 690	15.0	274, 260	1.8

n.a. = not available.

APPENDIX

G2

AGE OF HOUSING STOCK

Thousands

Area	Total Housing Stock 1967	Houses Built Before 1914		Houses Completed 1945-1967	
		No.	%	No.	%
Huddersfield C.B.	47.8	23.4	49.5	10.7	22.3
Colne Valley U.D.	8.4	3.8	45.4	1.5	17.8
Denby Dale U.D.	4.0	1.0	24.6	1.1	27.5
Holmfirth U.D.	7.4	4.7	65.9	1.5	20.2
Kirkburton U.D.	6.3	2.9	47.1	1.8	29.5
Meltham U.D.	2.3	1.4	63.6	0.7	30.4
Study Area	76.2	36.7	49.5	17.3	22.7
Saddleworth U.D.	7.6	5.0	65.7	1.2	15.8
Yorkshire and Humberside	1,671.1	n.a.	n.a.	528.9	31.7
England and Wales	16,934.7	n.a.	n.a.	5,494.7	32.4

n.a. = not available

APPENDIX

G3

RATEABLE VALUE OF DWELLINGS, APRIL 1968

Area	Total Dwellings ('000)	Dwellings with a Rateable Value					
		Not exceeding £30		Exceeding £30 but not exceeding £56	Exceeding £56 but not exceeding £100	Exceeding £100 but not exceeding £200	Exceeding £200
		No. ('000)	%	%	%	%	%
Huddersfield C.B.	46.5	19.4	41.6	41.7	14.4	2.1	0.1
Colne Valley U.D.	8.2	5.5	67.3	27.8	4.5	0.4	-
Denby Dale U.D.	3.8	2.3	66.6	28.4	8.9	1.0	0.2
Holmfirth U.D.	7.0	3.9	54.9	29.3	13.7	2.0	0.2
Kirkburton U.D.	6.1	3.1	50.3	33.1	15.0	1.5	0.1
Meltham U.D.	2.2	1.0	48.4	34.6	15.7	1.1	0.2
Total Study Area	73.8	35.2	47.7	37.4	13.0	1.8	0.1
Saddleworth U.D.	7.2	3.5	49.0	24.6	23.3	3.1	-
Yorkshire and Humberside	775.7	230.8	29.8	42.8	23.6	3.6	0.2
England and Wales	15,275.5	2,234.0	14.6	28.0	39.9	15.8	1.7

APPENDIX

H

HEALTH STATISTICS

APPENDIX

H1

PROVISION OF HOSPITAL BEDS

Service	No. 1967	Rate per 1, 000 population in 1966	
		Huddersfield Planning Area (1)	England and Wales
Locally based Services			
Acute	741	3.1	3.7(2)
Maternity	134	0.5	0.5
Geriatrics	442	1.8	1.2
TOTALS	1, 317	5.4	5.4
Services for which Huddersfield is part of a wider area			
Mental Illness	637(3)	2.6	2.9
Mental Subnormality	343(3)	1.4	1.3
TOTALS	980	4.0	4.2

Notes: (1) The hospital planning area consists of the study area plus Saddleworth U. D. and part of Brighouse M. B. The ratios are based on the 1966 population of the hospital planning area of 241, 000.

(2) The national provision includes regional acute specialities such as neuro-surgery which are based on regional centres serving a wider area and which are not present in the local figure.

(3) Huddersfield portion of beds serving a wider area.

H2

PRINCIPAL CAUSES OF INCAPACITY FOR WORK (MALES) IN HUDDERSFIELD C.B. 1961-2 (12 MONTHS)

Rates per thousand men, standardised for age

Cause of Incapacity	Men starting one or more spells of incapacity		Man-days lost through incapacity	
	Rate	Index (G.B. =100)	Rate	Index (G.B. =100)
All causes	245.3	87	7820	88
All diseases of respiratory system	116.1	81	2257	79
Acute upper respiratory infections	40.1	85	457	88
Influenza	40.2	67	458	63
Bronchitis	32.3	88	1066	86
Arthritis and Rheumatism except Rheumatic Fever	16.4	65	369	65

APPENDIX

J

NOTE ON AGRICULTURE

There are approximately 1, 500 holdings in the area and they constitute just under 37, 000 acres of crops and grass and 10, 000 acres of rough grazing. There is a labour force of some 500 full time workers.

The land quality ranges from Grade 5 in the west to Grade 3 in the east, the greater part of the area being Grade 4; these grades heing based on the new Ministry of Agriculture Land Classification Survey in which land is graded from Grade I, the best land, to Grade 5, the poorer land. Pigs and poultry are of some significance. The future development of agriculture in the area may be influenced by the new forms of assistance towards hill land improvement and the improvement of farm structure by the new retirement and remodelling grants. These are long term measures and it may be some time before their full impact can be assessed

/151785 K12 4/69 TCL &TCL